Clinical Lecture

ON A CASE OF

ECCHYMOSIS OF THE SCROTUM.

Delivered at St. Bartholomew's Hospital,

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GENTLEMEN,—I bring this case under your notice chiefly because it affords me an opportunity of fixing for a while your attention on an important feature of the affection commonly called Pyæmia, or often now Septicæmia, but which I prefer to speak of more simply, yet more comprehensively, as blood-poisoning: chiefly on account of this, yet also because it illustrates some other very interesting facts in pathology and practice.

G. L——, aged thirty-one, a carman, was admitted into the hospital on the 10th of last December. During the dense fog which then prevailed he missed his way, and drove into the West India Dock. A considerable quantity of blood was extravasated into the scrotum, penis, and perineum. All these parts were black and blue, distended, and tense; but into the cellular tissue of the scrotum, especially on the right side, a very considerable quantity of blood was infiltrated. It was larger than one's two fists put together, and the skin over it was very black and tightly stretched. The state of the integument and its direct relation to the mass of blood beneath, which could be felt to be fluid immediately under it, and in evident continuity with that in the penis and perineum, showed plainly that the blood had escaped into the cellular tissue of the scrotum. There was no evidence of any hæmatocele—of hæmorrhage into the sac of the tunica vaginalis.

Now, when a part has been severely bruised, so as to rupture some of its vessels, the amount of blood which will escape depends on—(1) the vascularity of the part, and (2) the laxity of the structure. Hence hæmorrhage into the eyelids and scrotum is especially apt to be extensive. (3) The idiosyncrasy of the person—his tendency to bleed—the state of his tissues. Every one knows how widely persons differ in this respect. Some people, especially fat women advanced in life, are bruised by a mere touch; nay, sometimes the degenerate vessels will give way without direct violence of any kind. I may mention here a remarkable example of this.

A very fat elderly woman was brought to the admission room of the hospital on account of some sprain or other injury to the back. She was ordered into Stanley ward, and as the porters were carrying her in the sedan chair up two or three steps they gave her a sudden jerk. She started from fear of being upset, but it was quite clear that she was not struck anywhere. Shortly after she had been placed in bed, however, it was noticed with surprise that the poor woman had a pair of very large black eyes. We all were sure that there was nothing of this when she came to the hospital, and she could in no way account for the change. There was no suspicion of any direct violence, and there can be no doubt that some of the vessels of the eyelids had given way from the severe shake. This led, of course, to a careful examination of the heart, the first sound of which was very unsatisfactory; but there was no evidence, in her respiration or elsewhere, of any material embarrassment of the circulation. But what was anticipated happened shortly after. She died suddenly in her bed.

Finally, the extent to which bleeding proceeds is largely influenced by the conditions to which the injured part is subsequently subjected.

Now what was to be done in the case of the carman? Clearly nothing in the way of active interference. We had to rely on rest and time, watching meanwhile to meet any untoward symptoms, should they arise.

What may happen, then, when blood is extravasated into the cellular tissue without breach of surface? The surrounding tissues become stained, and if the effusion be subcutaneous we have the familiar characters of a bruise or ecchymosis. The integuments are discoloured; they present a livid red, or dusky blue tint, over an area which gradually extends and becomes lighter at the margin. The tint, when recent, varies from dark purple to crimson, being, no doubt, chiefly determined by the degree of exposure to the air. Thus blood effused into the conjunctiva even acquires rapidly, as is well known, a bright scarlet hue. Then, as the blood disappears, various shades of violet and olive-brown are intermingled. By and by the part becomes greenish, then at length yellow, and this slowly fades through pale lemon until the skin regains its natural colour.

The most favourable result of an ecchymosis is that the effused blood is absorbed. At first, supposing previous coagulation, the liquid portion or serum disappears with more or less of the colouring matter dissolved in it; then the colouring matter, set free by the disintegration of the cells, is taken up, and finally the fibrine, which previously undergoes a kind of fatty degeneration. It may be a question, however, whether all the fibrine which is formed under these circumstances is absorbed so frequently as it is supposed to be. Certainly sometimes, and perhaps more often than is usually believed, a tough mass of fibrine remains, it may be in layers, which either hardens and contracts into an imperfect form of fibrous tissue or false membrane, or, more rarely, becomes penetrated by earthy salts and calcifies.

In large circumscribed extravasations which have coagulated there is, after a while, especially towards the centre of the clot, sometimes evidence of fatty degeneration. More rarely crystals of hæmatoidin are met with. But it is perhaps in the smaller and more diffuse ecchymoses that the colouring matter of the blood is thus transformed.

Reabsorption is of course the most desirable, and, fortunately, under favourable circumstances, it is the most frequent, result. More frequent in diffused than in circumscribed hæmorrhage; for as blood coagulates in circumscribed effusions the fibrine is deposited at the circumference, and so separates the more fluid portion of the blood from the surrounding healthy vessels.

But everyone knows how blood thus let loose among the textures and excluded from air will sometimes remain for weeks, or even months, without apparently undergoing any material change. Its bulk does not visibly vary, and, when handled, it still gives the impression of being fluid. And when let out under these circumstances, even after a considerable period, it will spontaneously coagulate more or less perfectly. It seems clear, therefore, that while shut in among the tissues coagulation has been delayed. We know, in fact, that the coagulation of the blood is long delayed under these conditions. But again, when blood, so extravasated, is evacuated after a lengthened period, it sometimes still escapes in a fluid form, but now no longer with the power of coagulation under exposure, and having lost the characters of recent blood. It appears as a thick black fluid, like treacle somewhat diluted; and the microscope shows that the cells have, for the most part, broken up. Such collections, remaining for months, have been described as sanguineous tumours, and dignified with the name of Hæmatoma. Now, what previous changes have led to such a state as this? Has the act of coagulation been altogether prevented in blood thus dead, and perhaps putrid? Perhaps so, in some cases; yet here again it has, to say the least, been rendered highly probable, by the facts and elaborate arguments which Morrant Baker has brought forward, that there has been some degree of coagulation and a subsequent breaking down of the clot.

As a rule, no doubt the structural elements of blood thus effused gradually undergo disintegration—as a rule, the exceptions to which are perhaps not so numerous as they may at first sight appear to be. For, under the circumstances in which blood is usually extravasated, it is probable that slight hæmorrhage may recur at intervals for a long time, and this, with the addition of serum continually oozing from the walls of the cavity and simultaneous absorption, may account for the recent characters presented by some of the blood which has thus been long pent up.

Blood effused may become what is called "encysted." This form of expression is an unfortunate one, for the term "encysted" is liable to mislead. The so-called cyst wall is, as Prescott Hewett long ago showed in his admirable paper, nothing more than the outermost layer of the blood-clot, which, being closest to or in actual contact with healthy

structures, most speedily and completely undergoes those changes which lead to its organisation and conversion into membrane. The boundaries of the space, however, in which the blood lies at the same time usually become more consolidated and defined, so that indeed sometimes the cyst-wall seems to be formed partly of the peripheral portion of the blood-clot and partly of the circumjacent tissue. The serum which usually constitutes the contents of the so-called cyst varies in tint according to age. The colour, at first deepened by cruorine, gradually disappears, until the fluid may become either pale and clear or only slightly clouded by fat-molecules. Sometimes, however, clots of fibrine or of blood of various hues are found in the cavity; or, again, sometimes the cavity appears as a mere slit, the walls of the cyst being in contact. In this way is usually formed the well-known apoplectic cyst.

Not only may extravasated blood in exceptional instances become organised, acquiring ultimately the characters of fibrous or connective tissue, but it may become vascular. This is particularly well shown, as Prescott Hewett pointed out, in the blood-cysts sometimes found in the cavity of the arachnoid. As he says: "After a certain period the membranes forming these cysts become thoroughly supplied with bloodvessels, which may be seen in countless numbers permeating their whole structure; in severe cases it has been noticed that a minute network of vessels, most beautifully injected, is found at the margin of the new tissue, thus marking the point of union between the original and the false membranes."

Suppuration may occur during the process of disintegration, pus forming around and mingling with the effused blood; and this, next to absorption, is perhaps the most frequent event of extravasation. This process is, of course, preceded and accompanied by inflammation, the signs of which are usually obvious. There is increase of the swelling; more pain, tenderness, heat, and perhaps fever. The skin over it becomes red, and the integument grows thinner, especially at the focus, which is at length perforated.

But above all, and especially for our present purpose, it is important to understand that, in the process which leads to suppuration, a new layer is quickly developed—in fact, a wall of granulation-tissue is formed, which intervenes between the fluid and the surrounding vessels.

Lastly, there may be rapid decomposition of the effused blood; but this, happily, is rare, for it is apt to be followed by poisoning of the system.

Whether there shall be reabsorption, suppuration, or putrefaction depends very much on the degree of damage which the surrounding tissues have sustained. If these can recover, reabsorption may follow; but if these are so injured as to break down and decompose, suppuration or decomposition of the blood must inevitably occur.

It is clear, then, that even for the most favourable issue—absorption—a long time must at least be spent. Cannot this time be shortened? In a word, Why not at once let out the extravasated blood, and so bring to an abrupt close a course which is otherwise so tedious and uncertain? Why not! Because so long as blood is thus shut up in a close cavity, even when not absorbed, it may remain for an almost indefinite period without decomposition, or at all events without such decomposition as may lead to mischief. But when such a cavity is opened and air admitted, active changes begin at once, and then soon follow inflammation and suppuration and great danger of blood-poisoning. Hence surgeons are very reasonably shy of any interference of this sort, and usually prefer to wait, however long, in the absence of inflammation, suppuration, or other evidence of decomposition.

Then, as a rule, to which there must be very few exceptions, you are not to think of opening a cavity into which blood has been recently extravasated.

Probably, however, some of you may be aware that this exceptional practice is adopted in "certain circles" as a time-honoured custom; though here, no doubt, more in obedience to the exigencies of the hour than upon any calculation of the result. Prize-fighters are very apt to get black eyes; and, as the swelling rapidly increases, the lids become closed. Now, as the odds must be heavy against a blind champion, his friends and patrons secure for him temporary vision by puncturing the bruised eyelid, and then forcibly squeezing out its contents. That such a practice must occasionally lead to graver mischief I suppose there can be no doubt, although I should imagine that if such a proceeding be adopted at all it might be done with far less hazard immediately after the escape, while the blood is quite fresh, and therefore would take longer time to decompose.

But, short of this rough-and-ready method, can the surgeon do absolutely nothing for an ecchymosis but wait and watch? Yes; he may, in the first instance, do something to check further effusion by the adoption of means calculated, under the circumstances, to restrain hæmorrhage—by rest, position, judicious pressure, and the cautious application of cold. The old popular plan of at once pressing the handle of a spoon or some other convenient instrument on the part of a child's head which has been struck is a remarkably good one. The pressure not only tends to restrain further hæmorrhage, but it diffuses the blood which has already escaped into the surrounding tissue, and so perhaps hastens its subsequent absorption. Then, when the chance of further hæmorrhage has passed by, there are numerous applications one or other of which has found favour at different hands—lotions of vinegar or of acetate of lead or of arnica, for examples. The tincture of arnica, more or less diluted, is an immense favourite with some. It certainly has, in some instances, a remarkable power of allaying the severe pain sometimes associated with a recent bruise, and it is believed to promote absorption. But there is this objection to its use. The tincture of arnica, even when much diluted, is very apt in some persons to produce irritation and inflammation of the skin. After its application for a day or two, erythema or eczema is prone to appear, and hence annoyance and distress; so when you use it be on the look out for this. Then, further on in the case, various stimulating liniments and iodine may be had recourse to, or another very popular remedy with pugilists—a poultice made of the scraped root of the black briony; there is, however, the same objection to this as to arnica—that it is apt to irritate and inflame the skin. When the amount of blood which has escaped is not very considerable, and there is much stiffness and tenderness of the injured parts, warmth and moisture are often very grateful in the form of water-dressing, fomentation, or even poultice. But the latter application is usually reserved for the occurrence of inflammation and suppuration, when, in spite of the prejudice with which many regard it, it often gives, I think, more relief than anything else.

To return to our case. The man lay at rest in bed, therefore, for about three weeks, in which time the blood disappeared from the penis and perineum, and almost the whole of it from the left side of the scrotum; but there was little or no reduction of the right side. At the end of this time there was here not only no promise of absorption, but there were signs of commencing decomposition; a blush appeared on the surface, and the integuments became infiltrated; there were heat and some pain. So, not without deliberation, I concluded that by evacuation of the blood I should not only save time, but, what was far more important, lessen the ultimate risk; for it seemed no longer possible that decomposition of the blood could be averted.

Yet I confess I did not decide on this measure without grave apprehension. Let me explain. I feared that the rapid decomposition which would follow the admission of air to the cavity would lead to blood-poisoning. But why should this occur? Almost every day we see putrid fluids shut up, even under heavy pressure, in cavities among the tissues, and yet no poisoning of the blood supervenes. Why not? Here one might suppose are the very conditions for the production of pyæmia: a putrid fluid—animal matter in a state of active decomposition kept in constant contact, and this too under heavy pressure, with a raw surface. Many, indeed, write and talk as if such conditions were the only ones needed to induce pyæmia. They ignore the fact, which is nevertheless so familiar, that these conditions are continually present without the occurrence of pyæmia. I submit that the explanation of this is to be found in the fact that these cavities thus filled are bounded everywhere by a layer of new structure which is, or has the characters of, granulation tissue; and that this limitary membrane, when sound and unbroken, resists the passage of such fluids through its substance into the blood. They cannot penetrate it, or, at all events, they do not pass through it in sufficient quantity or in such a state as to poison the blood. This, observe, is not a matter of mere theory. Actual experiment, in the hands of Billroth and others, has shown

that granulation tissue, when healthy, has this power of resistance; and clinical observation, when directed to this question, leads to the conviction that when such tissue is deficient or unhealthy, or presents accidental breaches, decomposing fluids bathing wounds find an entrance to the blood. Further than this, at present, we cannot go. We know nothing of detail concerning the relation in which granulations stand to the act of absorption. But this great fact—for I believe it to be one—seems for the present almost enough. We may, however, bear in mind some of the facts relative to the influence of animal membranes on the act of absorption. The transmission of fluids through membranes is not the simple process it was formerly supposed to be. Not only is it much modified by the nature and surface of the tissue, but also by the character and composition of the fluid. It is now well known that the constituents of a fluid, apparently uniform, may be thus separated by a membrane through which one can and the other cannot pass; and that in this there is a means of analysis more subtle than chemistry can command.

Now this limitary membrane of granulation tissue or allied structure is found only under certain conditions. We are familiar with it as the superficial layer of healthy wounds, and we know that the wall of an ordinary abscess is similarly constructed. But the growth of such a structure requires time, and is the result of processes which need at least a certain measure of local health; and the formation of healthy pus is an associated act. But when extravasated blood collects in a cavity no such bounding tissue can of course at first exist. Time at least must intervene, and, at any rate for a while, such collections of blood can be circumscribed only by the tissues amidst which they lie. Whether such a wall shall be afterwards built depends on the kind of action which is set up in the surrounding tissues. The signs of this are usually those of inflammation and suppuration, such as we commonly recognise in the formation of an abscess.

In the case before us I saw no evidence that such a state of the part had been brought about, and therefore I was apprehensive that, when this cavity was laid open, any putrid matter that might form would gain an entrance to the blood. "Then," you will say, "why not have waited longer? Why did you interfere with such a prospect of doing mischief? Couldn't you have left it alone?" My answer is that it appeared to me to be a choice only of evils. I apprehended danger from exposure of the cavity; but I anticipated danger, too, from the decomposition of the blood as it was, and I hoped that by evacuating the fluid as completely as possible, and afterwards freely washing out the cavity with an antiseptic fluid, my patient might escape altogether from the danger.

Well, the cavity was laid open by a free incision, a large quantity of blood, changed into a thick black fluid like treacle, with broken clots, was evacuated, and the cavity was at once washed out thoroughly but gently with water and Condy's fluid.

And, now, mark what followed. This was done on the 2nd of January, and for two days there was no observation of importance; but on the 5th the report says: He has had two or three rigors, and has been sick. Complains of severe frontal headache and thirst; no appetite; skin moderately moist. Temperature 102·4°; pulse 106. On the following day (the 6th) the temperature was 102°; pulse 95. Headache and aspect better. He complains of slight tenderness along the left spermatic cord and above the pubes.—7th: Temperature 101·4°; pulse 96. Slight headache continues. In the afternoon it became severe, and there was recurrence of rigors and sickness, followed by profuse perspiration.—8th: Temperature 100·4°; pulse 88; and he was altogether much less distressed.—9th: Temperature normal; pulse 68. Declares that he feels well. On washing out the cavity in the scrotum there was for the first time an escape of pus.—10th: Again slight headache. Complains of severe pain in the left testis, and upward along the cord.—12th: Temperature 104°; pulse 100. Rigors, vomiting, and severe headache; much pain; and now swelling of the left cord.—13th: Temperature 104°; pulse 96.—14th: Temperature 100·3°; pulse 80.—15th: Temperature 101·2°; pulse 80.—16th: Temperature 100·4°; pulse 80. Acute tenderness along the left cord; and now a sense of fluctuation there.—19th: Temperature 100°; pulse 80. Since the last report the pain along the left cord has been severe, and fluctuation is now distinct. A free incision was made, and a quantity of laudable pus let out. No rigor or other disturbance followed. Mark this.—20th: Temperature normal; pulse 80. Altogether better.—21st: Feels quite well. Appetite returning. From this date he rapidly recovered, and soon left the hospital.

Now, really, it might almost seem as if such a case as this were given for our learning. In striking contrast to the collection of blood on one side we have on the other a collection of pus—an extravasation and an abscess. On the one hand fluid liable to decompose lies in contact with naked tissue, and when it does decompose the poison is absorbed into the blood. On the other hand, fluid liable to decompose is separated from the surrounding tissues by a new wall, which has been previously built up, so when it decomposes there is no absorption and no blood-poisoning, for I need hardly tell you that pus when exposed to the air will decompose. I said it was healthy pus—not putrid—when let out. But, of course, and especially in such a cavity as that which in this case remained, some pus must be retained, and must under these circumstances rapidly change. And we know very well, as I have already said, and will repeat once more, putrid pus and other fluids are frequently seen in cavities and on wounds without the signs of poisoning of the blood. For my own part, I confess I cannot account for the contrast without having recourse to the wall of the abscess.

The great lesson taught by this case was never more needful than now, when, as during late years, in researches on blood-poisoning, attention has been called from the study of causes operating within, and has been directed wholly to those operating from without. Was this a case of "hospitalism," think you? Do you imagine that the determining cause of the mischief was in the ward, or the bed, or anywhere but in the condition of the injured part? The air with its germs was equally admitted to both sides—to the ecchymosis and to the abscess; and will not pus decompose as well as blood? Whence, then, the difference, oftentimes as great as that between life and death, which in this striking instance is forced upon the attention of everyone?

STEALING AS A SYMPTOM OF GENERAL PARALYSIS.

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THERE can be no doubt that no little popular suspicion meets the allegation of insanity when it is made in defence of a person who is on his trial for the perpetration of some crime. Nor can it be said that the suspicion is entirely unwarranted by the use, or misuse, which is sometimes made of this mode of defence. It is too often had resort to by lawyers merely as a last resource, when all other means of defence fail, and when there is no real justification for setting it up. Moreover, there is a popular feeling, which judges commonly share, that it does not require any special knowledge in order to settle whether a man is mad or not, and that those who have made a special study of the subject of insanity are sure to discover symptoms of the disease wherever they look earnestly for it. Of a great many cases of insanity it is quite true that the public can judge almost as well as the doctors; the wayfaring man, though a fool, is not likely to make a mistake concerning them. In respect of a certain proportion of cases it may be admitted that doubts and differences of opinion are justified; belonging to the borderland between insanity and crime, they may be reckoned insane or criminal according to the standpoint from which they are looked at. But there are not a few cases in which the symptoms, though positive and definite, are not recognised and rightly interpreted by anyone who has not, by close observation of the manifold varieties of mental derangement and practical experience in dealing with them, acquired an intimate knowledge of what they

betoken. If he describes them to the lawyers or to the public, and expounds their meaning, he is thought to be making much ado about nothing by detecting evidence of madness in innocent trifles, if he is not met outright with ridicule and scorn. It is not difficult for ignorance, appealing to the prejudices of ignorance, to raise an empty laugh against a truth of which there is not the least comprehension.

Among these cases of mental derangement which are apt to be overlooked or misunderstood are cases of general paralysis of the insane in their early stages. No form of insanity has been more studied or is better known than this. Its symptoms are, though slight at first, definite and characteristic from the beginning; its course is wonderfully uniform; and its mode of termination and the time thereof may be predicted with considerable accuracy. Moreover, unlike other forms of insanity, it presents motor as well as mental symptoms from the commencement; wherefore it might be said to exact attention and to claim recognition from those who have not made a study of mental diseases. Nevertheless, the most grievous mistakes are often made concerning this disease in its early stages, not by lawyers and juries only, but by medical practitioners; and so it happens that patients struck with fatal organic disease of the brain, declaring itself by symptoms which could hardly speak more plainly than they do, are tried, sentenced, and punished as common-place criminals.

It is well known to those who know anything of insanity that a propensity to steal is a striking symptom in the early stages of some cases of general paralysis. A person whose character has been irreproachable in all the relations of life, and whom no one would ever have suspected of an inclination to break the eighth commandment, after surprising and distressing his friends by irregularities of conduct at variance with the respectable uniformity of his former life, seems to lose the consciousness of the difference between what is his and what belongs to another, and in the quietest way, as if he were doing nothing extraordinary, appropriates what strikes his fancy at the moment, and what he has, perhaps, no use for, and, when he has got it, makes no use of. The stealing is often done in a stupid way, without any adequate motive or without the outlook of any gain thereby, apparently in obedience to an impulse to possess springing up in a mind in which the sense of right and wrong has been weakened or extinguished. In some cases the patient makes no attempt at concealment; but in other cases there lingers a remnant of the sense of right and wrong which, too feeble to contend with the stealing impulse, leads to bungling attempts to hide the petty larceny.

In the *Journal of Mental Science* for January, 1873, Dr. Wilkie Burman relates the particulars of six well-marked cases of general paralysis admitted into the West Riding Asylum at Wakefield, *after having undergone the whole or the greater part of their punishment in gaol* for larceny; and, in regard to these cases, he expresses his conviction that the disease might easily have been diagnosed at the time of imprisonment, without any very prolonged examination, "by any medical man who had even the most rudimentary knowledge of the symptoms of general paralysis." Indeed, in one of these cases the disease was actually recognised by a barrister who was present in court when the man was tried, and yet this unfortunate man remained in gaol for five months before being sent to the asylum; he underwent the punishment of a criminal for five months after a hopeless disease of the brain had begun to make its fatal progress. Another person suffering from general paralysis was sentenced to six months' imprisonment for stealing two wheelbarrows and twelve hundredweight of coals in open daylight, without any attempt at concealment, and without being in want of them, as he was in comfortable circumstances. He was kept in prison for four months, having been in the hospital occasionally during that time on account, it was said, of "some slight bodily ailment." However, this slight bodily ailment did not fail eventually to culminate in such violence and excitement as necessitated the patient being restrained by a strait-jacket and confined in a padded room during the last three weeks of his imprisonment, after which he was sent to the asylum, where his disease made rapid progress. Another person was sent to gaol for twelve months for stealing some wine-glasses from an hotel. A fortnight after his discharge from prison he was admitted into the asylum in an advanced state of general paralysis, and he died about three weeks after his admission. These cases presented on admission into the asylum the usual exalted ideas of general paralysis, as well as the distinctive bodily symptoms. They and the other three cases which Dr. Burman mentions were admitted into the West Riding Asylum within a comparatively short time, and had presumably undergone their punishment in the gaol of the West Riding at Wakefield.

I will now give the particulars of a case that occurred in my practice, which illustrates the same lesson and excites the same painful reflections as Dr. Burman's cases. H. J. P—— was brought to see me in the early part of September, 1874. He had recently failed in his business, and his changed character and peculiar manner had for some time occasioned anxiety to his friends. It was a question of the propriety of endeavouring to get him admitted into Bethlehem Hospital. When I saw him, his symptoms were such as led me to think that he was struck with general paralysis, and to say that he would probably not live two years. There was a slowness of conception, with a certain vacancy of look, which gave the appearance of some degree of stupidity; there was also exhibited at times a slight uncertainty, hardly amounting to tremulousness, in the action of the muscles around the mouth; and there was a remarkable incapacity to realise that there was anything the matter with him, or that his failure in business at all affected his future prospects. He seemed to think that it would be easy for him to go on as before, and that he would have no difficulty in getting advances of stores from the houses which had suffered by his failure. At the same time, when it was pointed out to him how unlikely this was, he assented in a placid and indifferent way, but evidently without sincerely realising what he assented to or being convinced by what was said. At the urgent desire of his wife, who could not be persuaded how seriously ill he was, and who was naturally unwilling to send him to an asylum, he was allowed to go with her to the seaside, she having been warned to never lose sight of him. While resting there he seemed to improve; but one day, having obtained some money from her, under I know not what pretext, he disappeared. The next thing that was heard of him was that he was in custody at Doncaster for stealing a watch. He had gone directly from his wife and taken the mail train to the north on the night of Sept. 24th, 1874, and at Peterborough had got into a carriage in which was another passenger. This person went to sleep, and when he awoke his gold watch and his fellow-passenger were gone. When the train was searched, H. J. P—— was found in another carriage, and the stolen watch was underneath the seat on which he was sitting. When taken to the police-office, he remarked to the constable, in reference to the handcuffs which had been put on him: "You should not have put these things on me. Oh, what a disgrace!" Knowing the condition of disease in which he was, I was not greatly surprised when told by his friends what he had done, and at their request I willingly gave them a certificate that he was in my opinion a person of unsound mind, being in the first stage of general paralysis, and that arrangements had been in contemplation for placing him in an asylum. However, this view of his state did not commend itself to the surgeon of Wakefield Gaol, who could find nothing the matter with him, and had no hesitation in declaring him to be quite sound. Feeling that, under these circumstances, a great injustice was likely to be done to a man who was afflicted with hopeless organic disease of the brain, I wrote to Dr. Crichton Browne, the well-known superintendent of the West Riding Asylum, begging him kindly to examine the man, and, if he found him really afflicted, to do what he could to help him. Dr. Browne readily consented to do so, and, having carefully examined him, came to the same conclusion as I had done, that he was labouring under general paralysis and was not responsible for his actions. Moreover, Dr. Browne was so good as to attend at the man's trial and to give decisive evidence to that effect. Dr. Watts, who had been his ordinary medical attendant in London, was also present at the trial, and gave similar evidence. But it was all in vain. Dr. Wood, the surgeon of the gaol, stated emphatically that he had watched the prisoner carefully for a month, and that he was "sound in body and mind," and the evidence in his favour was received with open incredulity. "I shall not easily forget," Dr. Browne wrote to me, "the smiles of

incredulity which pervaded the Doncaster Court-house, from the Recorder downwards, when I described the inequality of the pupils, slight tremor of the tongue, and other *little* symptoms which enabled me to recognise the justice of your diagnosis of general paralysis. I shall not easily forget the derision with which my prediction that the robust, healthy-looking man standing at the dock would not live above eighteen months was received on all hands. The Recorder, taking into consideration the good character which the prisoner had previously borne, sentenced him to two months' imprisonment with hard labour. The poor man thus got the benefit of his previous good character, though he did not get the benefit of the disease which had produced the sad change in his character.

His friends very properly refused to let the matter remain so, and at once made such representations to the proper quarter, supported by affidavits, as led in a short time to the remission of the sentence. A few days after his discharge, on November 27th, I saw H. J. P—— again, and questioned him about the theft, and the motives of it, and as to where he was going by the train. His account was that he thought he would go to Scotland, though he could give no satisfactory reason why he should go there, and would stop at York on the way, in order to see the cathedral; that the idea of taking the watch came into his mind when he saw his fellow-passenger asleep; and that, having taken it, he got out of the carriage, and made his way to another carriage. He was quite insensible to any feeling of shame on account of what he had done, and seemed unable to realise its criminal nature; nor did he evince any sense of disgrace on account of having been in prison, talking of it in fact as freely and unconcernedly as he might have done of a friend's house in which he had been staying for his health's sake. I recommended that he should be taken to Dr. Watts for the purpose of obtaining a certificate of his insanity, agreeing to sign the second certificate myself, and that he should be sent to an asylum; enjoining upon his friends that he should meanwhile be closely watched, as it seemed certain that he would do something extraordinary if he were not under control. Divided family counsels prevented his being put immediately under restraint, and the next news which I had of him was contained in the following paragraph which appeared in the newspapers:—

"*Extraordinary Capture of a Thief.*—Soon after midnight on Thursday, when the mail train for London had passed the Tuxford station, a man covered with blood went to the signalman's box and stated that he had fallen from one of their carriages. His face, head, and hands were very badly cut and bruised, but the railway official had his suspicions aroused and telegraphed to Retford, the next station, for the train to be examined on its arrival there. In a minute or two he received directions, in answer to his telegram, to detain the man, as a robbery had been committed. The man, not knowing that the officials had telegraphed to Retford, asked that he might be sent back to London to his friends by the next train, as his injuries were so severe that he did not feel able to continue his journey to Manchester, for which place he had taken a ticket at King's-cross station. A doctor was sent for, and, after he had dressed his wounds, Sergeant Hallam, of the Notts police, stepped in and apprehended him. On searching him a false beard and moustache were found in one of his pockets, and in another a dagger nine inches long—a most formidable weapon, as sharp as a razor. Two watches were found upon him. It appears that the prisoner had been riding in the same compartment with Mr. Robinson, a Manchester horse-dealer, and one other person. All save the prisoner went to sleep after leaving Peterborough, and did not wake again until they were aroused at Retford to find their companion, the prisoner, gone, and one of their watches also. It is supposed that the prisoner, after stealing the watch from one of the sleeping travellers, left the compartment, and tried to get into another. As the mail was running along at the rate of sixty miles an hour, he, failing to find a compartment which he might enter unobserved, either jumped off or fell from the train. He is a clean-shaved, thick-set, powerful man, and has given the name of Henry James Price. He is now detained in the Retford Police-station, and will be brought up to-day."

Here was a nearly exact repetition of his former performance. He had been again going to the north without any apparent reason, and on his way had again stolen the watch of a sleeping passenger, but this time he had evidently gone with evil design, else why should he have provided himself with the false beard and moustache, and the formidable dagger? The result of the adventure was that he was on Dec. 7th committed to the county gaol at Nottingham to take his trial, but he had not been there long before incontestable symptoms of insanity manifested themselves. Thereupon he was removed, on Jan. 14th, 1875, to the county asylum. On Feb. 24th he had three severe fits of an epileptic character; similar fits recurred from time to time during the following month; his mind became more and more enfeebled, and his bodily strength declined; furious mania supervened, and he died from exhaustion on August 31st, after being raving mad for eight weeks.

Comment upon this case is unnecessary. It will be enough to express regret that the unhappy sufferer should not have found in medical help the protection and treatment which his sad and hopeless disease demanded, and a conviction that the time has come when it is the duty of medical corporations to exact some knowledge of mental diseases from those upon whom they confer their licences.

Hanover-square, W.

A USEFUL METHOD OF EXCISION OF THE ELBOW-JOINT.

BY C. F. MAUNDER, F.R.C.S.,
SURGEON TO THE LONDON HOSPITAL.

IT is scarcely necessary to suggest that, in performing an operation, the local consequences should be kept prominently in view. To know the result of an operation some years subsequent to its performance is the best way of appreciating its merits, and must be my excuse for publishing extracts from a letter which I have just received from New Zealand, from a gentleman whose right elbow-joint I excised about six years ago.

"*From J. N——, Hereford street, Christchurch, New Zealand, August 5th*, 1875.

"DEAR MAUNDER,—You will be glad to learn that my arm has won the champion billiard cue in the late match here; also that I took second honours in quoits. I send you a paper per post.....I have left a clause in my small will that my arm shall be preserved and sent to you for examination and dissection after my death. I believe it to be the finest arm in the world without a joint.—Yours truly, J. N."

The case was one of very severe compound comminuted fracture of the ends of the bones forming the right elbow-joint, and to which I was called by Dr. Floyer, of Bishopsgate. I performed excision on a method which I suggested to the profession as a *certain* means of securing active extension by the triceps—a desideratum hitherto only rarely, and then accidentally, attained. Briefly put, my object is arrived at by avoiding all transverse section of the soft parts lying between the point of the olecranon and the external condyle of the humerus. In this way the continuity of muscular and aponeurotic structures passing from the arm to the forearm is not destroyed.

FIG. 1.

I have exhibited, from time to time,

at meetings of societies, patients submitted to operation by this method of mine,* and all who saw them were surprised by the amount of the power of extension which was thus secured. Mr. Steele, of the Bristol Infirmary, has both practised and published his approval of the method.

Fig. 1 shows a left arm immediately after the performance of the operation; the hook sustaining the structures which are to be carefully preserved.

FIG. 2.

Fig. 2 is a sketch of the arm of J. N——, taken three years ago, and three years subsequent to operation. The forearm is in the position of active extension by the triceps. He could then play billiards, quoits, and use "the gloves" with facility.

Queen Anne-street, W.

ON

FIFTY CASES OF HÆMOPTYSIS TREATED WITH ERGOT.

BY JAMES M. WILLIAMSON, M.D. EDIN.,

RESIDENT MEDICAL OFFICER ROYAL NATIONAL HOSPITAL FOR CONSUMPTION, VENTNOR, ISLE OF WIGHT.

ABOUT eighteen months ago, after reading the papers written on the subject by Dr. Anstie in the *Practitioner*, I commenced making a fair trial of the value of ergot in the treatment of hæmoptysis. The success which followed its administration was so encouraging that I gave the drug in every case of hæmoptysis which I was called upon to treat, and I now propose to state briefly the results of its use in fifty cases.

The fifty patients were suffering from phthisis in different stages, and the amount of the hæmorrhage varied from abundant bright streaks on the sputa to the expectoration of several ounces of blood. As the cases all occurred in hospital practice, very little time was lost between the advent of the hæmoptysis and the exhibition of the remedy. The ergot was invariably given by the mouth and in the form of the liquid extract. Much has been said about the success of the subcutaneous injection of ergotin and its superiority to this plan, but since there was no difficulty in any of the cases in administering a draught, and as the drug acted in most instances with a promptitude which was sufficiently satisfactory, the hypodermic method was not employed. Forty-minim doses of the liquid extract may be given twice within the first hour, and, guided by the results, at least every two hours afterwards, the dose being diminished and given less frequently as the hæmorrhage subsides. I have never observed any disagreeable effect follow even upon the administration of large quantities within short periods, but, as a general rule, if four or five full doses make no distinct impression upon the hæmorrhage, the remedy should be abandoned for another. Care should be taken to use a fresh and sound preparation of the ergot.

Out of the 50 cases, the drug rapidly checked all bleeding in 44 instances. Of these 16 were women and 28 men, and in at least one-fourth of the number the hæmoptysis merited the term profuse. In 40 of the 44 cases it was the first and only remedy given; in 2 others it was successful after a mixture containing gallic acid, alum, and dilute sulphuric acid failed; in another it was effectual after acetate of lead with opium proved useless; while in the remaining instance it repressed the bleeding after both of these plans were unavailing. The ergot was ineffectual in 6 cases, and of these it may be well to give some particulars. Case 1 was that of a middle-aged widow, who had had several violent hæmorrhages. On this occasion it was very copious, and repeated doses of ergot, given in rapid succession, produced no perceptible abatement; gallic acid was then substituted, but just as it was making a decided impression it gave rise to such griping pains in the abdomen that it had to be given up; ergot was resumed, and the hæmorrhage rapidly ceased. Case 2 was that of a young man in whom the hæmoptysis was moderate; it was unaffected by ergot, but yielded to gallic acid. It is only right to add that in this case there was some doubt as to the goodness of the sample of ergot used. Cases 3 and 4 were two examples of a slight, but very chronic and obstinate hæmoptysis, in which the sputa had a uniform pink tinge. In one of the men, gallic acid succeeded after ergot proved a failure; in the other, gallic acid, ergot, acetate of lead with opium, perchloride of iron, ammonio-sulphate of iron, the mineral acids, and oil of turpentine, were all successively tried without avail. Case 5 was that of an unmarried woman, aged twenty-five. She had had many previous attacks. Ergot proved ineffectual, and was replaced with success by acetate of lead and opium. Case 6 was that of an unmarried woman, aged twenty-three, who had also had frequent previous hæmorrhages. On this occasion the bleeding was profuse, and resisted both ergot and gallic acid; oil of turpentine eventually subdued it.

The cases in which ergot failed have been stated somewhat fully, partly to show that, in at all events three of the number, it shared the failure in common with gallic acid, the remedy which is probably most frequently employed in the treatment of hæmoptysis. Over gallic acid ergot has the distinct advantages of never causing griping or constipation, and more especially of not interfering with a liberal use of milk. The large proportion—equivalent to 88 per cent.—of the cases in which ergot succeeded, not only testifies to its great value and claims for it our confidence, but also strongly justifies the recommendation that it should be the first drug tried in all cases of hæmoptysis.

Ventnor, I.W.

* Maunder's Operative Surgery, second edition, p. 120.

CASE OF

COMPOUND FRACTURE OF THE PATELLA.

BY ARTHUR B. EWEN, M.R.C.S., &c.

THE case of Wound of the Knee-joint treated Antiseptically brought before the Clinical Society by Mr. Pick, and reported in THE LANCET of Oct. 16th, reminds me of a somewhat similar case in my own practice, treated on a different principle. I am not about to dispute the value of the antiseptic mode of treatment; I would merely urge that its great superiority over other and simpler methods is, as yet, not proven. Certainly, as far as the practice of surgery in country districts is concerned, where we have the immense

advantage of a constant supply of pure air in our favour, we can challenge comparison with all the recorded results of antiseptic treatment. The treatment by means of fresh air and cleanliness will always commend itself to the surgeon on account of its extreme simplicity, until the results of the more complicated and troublesome system are shown by the most unequivocal statistics to possess the decided superiority claimed for it by its advocates.

On Aug. 27th, 1866, Jane B——, aged sixty-four, the wife of an agricultural labourer, while feeding a threshing machine, slipped from the stage and fell into the drum, sustaining severe injuries of the right arm and left knee-joint. She was a healthy, active woman, slightly built, and of spare habit, had had a large family, and was accustomed to field work. On examination I found the forearm and elbow-joint crushed and lacerated so extensively that it was necessary to amputate the arm at the upper third; this I did under chloroform, and then, on examination of the knee-joint, I found severe bruising of the integuments, two extensive lacerations into the joint, and the patella divided into three larger and several very small fragments. I removed five or six small loose pieces of bone from the wound. At first I thought, considering the severity of the damage to the joint, that the best plan to adopt would be to amputate at once; but I feared that, as she had lost so much blood before my arrival—an hour after the accident,—and as she had just undergone the amputation of the arm, I should most likely kill her outright if I removed the leg. I therefore decided to put the leg on a straight splint, and give her a chance of recovery with an anchylosed joint. All the loose fragments of bone and one or two pieces of straw which had got into the wound being removed, I brought the edges together with two silk sutures, and covered the knee with lint saturated with cold water, which dressing I directed to be frequently changed. Twelve hours after the accident she had a pulse of 120, and there was considerable effusion into the joint. The constitutional disturbance gradually and quietly subsided. There was a moderate discharge of healthy pus from the wounds; no burrowing of matter. A small portion of integument, two inches long and half an inch wide, from the upper part of the wound, which extended across the front of the joint, sloughed away, having been severely bruised at the time of the accident. This somewhat delayed the healing process. After the first fortnight she gained strength rapidly, and five weeks after the accident the wounds were healed and all discharge had ceased. On Nov. 10th, seventy-five days after the accident, the patient walked up to my house, a distance of three miles, and expressed herself as being delighted with the very fairly useful limb she now possessed.

One great element in her rapid recovery was the beautiful autumnal weather, which enabled her to enjoy the benefit of constant fresh air. She had her cottage door, which was just opposite her bed, open from sunrise to sunset. She was also of a very cheerful disposition, and from the first seemed to have made up her mind that she should get well. She lived four years after the accident, and died in 1871 of cancer of the breast.

Long Sutton.

NOTES OF FIVE CASES OF ARROW-WOUNDS (RECEIVED IN THE SOUTH SEA ISLANDS), TWO FOLLOWED BY TETANUS AND DEATH.

BY SURGEON ALFRED CORRIE, R.N.

(*Concluded from p. 660.*)

CASE 3.—Thomas S——, aged thirty, cook. This man, when on shore (August 12th, 1875) at Santa Cruz Island, received a wound (punctured) of the right side, over the crest of the ilium, not very deep. The arrow was at once removed; the wound, some fifteen minutes after the accident, was sucked and enlarged, and nitrate of silver applied freely. He felt a little giddy and sick at the time. A stimulant was given in the shape of some brandy and water.

Aug. 13th.—Slept a little; rather restless during the night. Pain and tenderness around the wound, extending down the thigh; slight headache; tongue moist and clean; no chills; bowels irregular. Temperature 99°; pulse 80. Ordered cathartic mixture, an ounce and a half; water-dressing to wound.—8 P.M.: Taken food fairly; less pain about wound; still a slight headache; bowels confined. Temperature 99°; pulse 88.

14th.—Slept well during the night. Less pain about the wound; no sickness or headache; bowels confined. Water-dressing to wound; cathartic mixture, two ounces. Temperature 98·4°; pulse 80.—8 P.M.: Felt a little sick this morning. Bowels have been opened freely; felt better after it. Is taking food well; wound less painful and looking healthy. Temperature 98·6°; pulse 80.

15th.—Passed a good night. Wound progressing favourably; but little pain or tenderness about it now. Temperature 99·2°; pulse 80.

20th.—For the last five days the patient has been going on well; wound looking very healthy and healing fast. He takes food well; bowels regular. Temperature generally normal; pulse between 75 and 80.

25th.—Wound not quite healed yet, but going on well; patient does not complain of anything, and appears in excellent health. Continue water-dressing.

29th.—The wound having healed without one bad symptom, and the patient appearing in robust health, he was discharged to duty the seventeenth day after the accident. He is at present (Sept. 3rd) working about the ship and going on well.

CASE 4.—Allen J——, aged twenty-seven, seaman. This man received (August 12th, 1875) at the Island of Santa Cruz, a punctured wound, about two inches above the pubis, from an arrow supposed to be poisoned with some animal poison. The arrow was immediately pulled out. It went in about half an inch. Wound sucked fifteen minutes after the accident, enlarged, thoroughly examined, and nitrate of silver applied. Complained of nothing in particular at the time of the accident.

13th.—Slept fairly; felt pain during the night at lower part of the abdomen; no sickness, headache, or chills; tongue a little coated; bowels regular; water-dressing applied to wound. Temperature 98·4°; pulse 66.—8 P.M.: Felt during the day wandering pains all over the abdomen, extending down both thighs; enlargement of glands in groins; had a feeling of sickness during the day, but has not vomited at all; very giddy; fell on deck on one occasion; no headache. Temperature 99·2°; pulse 80. Ordered half a drachm of solution of hydrochlorate of morphia, and wound dressed.

14th.—Slept tolerably well; not so much pain about abdomen and thighs; no sickness or giddiness; wound looking healthy; bowels confined. Temperature 98·4°; pulse 72. Ordered two ounces of cathartic mixture, and wound re-dressed.—8 P.M.: Taken food well; bowels freely open; pain much less in abdomen. Temperature 98·4°; pulse 76.

15th.—Wound healing; patient going on well; water-dressing applied to the wound. Temperature 98·4°; pulse 64.

20th.—During the last five days patient has been progressing favourably. Temperature normal; pulse generally 70 or 75.

29th.—Wound healed; complaining of nothing; not a bad symptom during the last twelve days. Discharged to duty seventeenth day after the accident, patient working about the ship and going on well.

CASE 5.—Thomas J——, thirty-three, seaman. This man, going on shore at the Island of Santa Cruz, Aug. 12th, 1875, received an arrow-wound of the right leg an inch above the internal condyle. The arrow passed in in an oblique direction some two or three inches. The arrow was quickly removed, the wound, which bled freely, was at once sucked by one of the seamen, and a bandage applied tightly around the leg. Some fifteen minutes after the accident he was seen on board by the medical officers; the wound was a little enlarged, and carbolic acid and glycerine injected. A few hours after the accident he complained of a little pain around the wound.

Aug. 13th.—Slept well; no sickness, headache, or rigors; feels some stiffness about the wound; tongue clean; bowels regular. Temperature 99°; pulse 78. Wound dressed with a solution of carbolic acid and glycerine.—8 P.M.: Tempera-

ture 100·4°; pulse 88. A feeling of sickness during the day; has not vomited; slight headache; taken a little food; rather thirsty; no rigors; pain in leg much the same as this morning; wound re-dressed.

14th.—Passed a tolerably good night; felt a little sick; much less pain in the wound; bowels confined; no headache. Temperature 99·6°; pulse 92. Ordered cathartic mixture two ounces; linseed-meal poultice.—8 P.M.: No change in patient. Temperature 99·8°; pulse 80.

15th.—Little or no pain in wound; some discharge coming from it; patient's general health good. Temperature 98·8°; pulse 80.

20th.—Wound healing fast; no bad symptoms; progressing favourably. Temperature generally normal; pulse about 75 or 80.

25th.—No great change; wound fast healing.

31st.—Wound healed; patient complaining of nothing. Discharged to duty on the nineteenth day after the accident.

Remarks.—The first question which suggested itself to me was—Had the animal poison which is stated (by men who have been much among the South Sea Islands) to be on the arrows of these natives anything to do with the result of two of the cases—namely, tetanus and death? I cannot help thinking myself that the arrows were not poisoned; if they were, the poison could have had no effect. Three of the men hardly experienced (although their wounds were nearly as severe as the wounds of those who died) from beginning to end one bad symptom, not even enlargement of neighbouring glands, or any of the signs of a common dissecting wound, which I take it ought to have been the result if the arrows were poisoned.

The two men who died suffered but little for the first four or five days, when suddenly tetanus set in, assuming a severe form, and running a rapid course to death.

I think the cases are interesting as showing the fatal results of punctured wounds in the tropics and perhaps the sad circumstances connected with them.

H.M.S. *Pearl*, Australian Station.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

LONDON HOSPITAL.

SEVERE CASE OF IODISM; TRACHEOTOMY.

(Under the care of Dr. FENWICK.)

THIS case of iodism, for the notes of which we are indebted to Mr. Roland Smith, resident medical officer, is one of the most remarkable hitherto recorded, and presents many points of interest. The patient was evidently unusually susceptible to the influence of the iodide of potassium, and suffered alarming symptoms from the effects of the drug, notwithstanding its combination with bicarbonate of potash, which, it has been stated, diminishes greatly the risk of iodism. The dose (ten grains) of the iodide was undoubtedly a large one to commence with, and is sufficient to give rise to disagreeable symptoms in most persons. It is the custom with many of those who are in the habit of using this drug largely to begin with small doses of three or four grains, gradually increased. By this means patients may often be made, in time, to take very large doses without any inconvenience whatever, although they showed at first an intolerance of the drug when given in full doses. Among the other circumstances worthy of note in this case was the absence of purpura or other cutaneous manifestations in the legs. In several cases that have come under our notice the walls of the hair and sebaceous follicles of the legs were the chief or only portions of the skin affected.

Frederick R——, aged thirty-five, was admitted to the hospital at 9.30 A.M. on the 9th of October in a semi-comatose condition. His face was swollen and deeply congested, and the eyelids were puffy and red, as in an exaggerated case of facial erysipelas. The lips and tongue were extremely livid, the tongue being swollen and protruding from between the teeth. Very little air entered the lungs, and the epigastrium and intercostals sank in with each inspiration. There was croupy breathing, and on one occasion the cough was typically laryngeal. The pulse was scarcely perceptible. There was no dulness on percussion at the upper part of the sternum, no palpable interclavicular pulsation, and no bruit or other signs indicative of an aneurism pressing on either the trachea or the recurrent laryngeal nerves. Feeling certain that the obstruction was laryngeal, and noticing that the respiratory power was failing, Mr. Job, the house-surgeon, performed tracheotomy to prevent death, which seemed inevitable. The operation was not done a moment too soon, for breathing had ceased and the patient was pulseless for nearly a minute before the termination of the operation; but artificial respiration for a few seconds sufficed to restore life, and, before five minutes had elapsed, the patient expressed himself as much relieved. Colour returned to the lips and tongue, a good pulse was felt at the wrist, and the respiration seemed quiet and unimpeded. Without further examination at the time, the patient was sent into the ward.

At 12 o'clock, when seen by Mr. Smith, some pustules were observed on the face, and a papular eruption on the back of the hands and flexor aspect of forearms, the abdomen, chest, and lower extremities being exempt. At the back of the neck there were three pustules, and several on the ears. The patient was at this time breathing quietly. The temperature in the axilla was 99·4° Fahr.; pulse 100; respiration 36. There was no lividity of face, the eyelids were less swollen, no pustules on conjunctivæ, but very great chemosis. Owing to the umbilicated appearance of some of the pustules, the man was at once isolated. There had been no rigor, no pains in the loins, and no vomiting; but there was considerable headache.

The patient's previous history, as given by his wife, was as follows. Three years ago the patient had two similar attacks, and for each was treated in the London Hospital. On those occasions the breathing was not affected, but the throat was slightly sore. The eruption was confined to the nose, eyebrows, and forearms. Iodide of potassium was supposed to have been the cause of each, as that drug had been taken on both occasions. Excepting for rheumatism, he remained well until three months ago, when he became the subject of kidney disease (acute nephritis?). For the past month he has felt languid, and sometimes been obliged to give up work on that account. On Oct. 7th he woke up with rheumatism in his left wrist and a pain in the cardiac region. He got the following medicine from a medical man whom he consulted: "ten grains of iodide of potassium, ten drops of tincture of digitalis, fifteen grains of bicarbonate of potash in water, to be taken three times a day." Six doses only were given. After the fourth dose he thought he had caught a violent cold, and went to bed. He continued the medicine. At 1 o'clock on Saturday he woke up with a sensation of choking, called his wife, and tried to tell her he should choke; he could scarcely articulate. Poultices externally and inhalations of steam gave no relief. A neighbouring medical man was consulted at 9 o'clock, and his immediate removal to the hospital recommended. The patient was vaccinated when a child. Fifteen years ago he had small-pox; no history of syphilis could be obtained; family history was good; no similar illness or rash has occurred in anyone living in the street or neighbourhood where the patient resides.

Oct. 10th.—10 A.M.: Temperature 102·4° F.; pulse 130; respiration 21. 10 P.M.: Temperature 102·8°; pulse 136; respiration 24. On his face there were several pustules, some of them closely resembling variola of about the eighth to the tenth day. The eyelids were still swollen and œdematous, and there were spots also on his ear, hæmorrhagic-looking, and evidently containing bloody serum; others on his ears were much smaller, and did not contain pus, but were simply papules. There were three pustules on the back of the neck, none on the abdomen, chest, back, upper arms, or lower extremities, but a great number on the forearms, and in this situation the different varieties were very

well marked. Some pustules were large and umbilicated, others not umbilicated, and varying in size so as in some places to resemble a simple papular eruption. The uvula was elongated, and the mucous membrane was somewhat swollen as if œdematous, but there was no eruption on the palate or pharynx. Urine copious in quantity, sp. gr. 1008, acid, albuminous, 1·4 per cent. of urea, and gave the characteristic reactions of iodide of potassium solution.

11th.—The tracheotomy tube was removed after forty-eight hours, as the patient could by that time breathe quietly through the natural passages. Soon after removal a quantity of adhesive mucus was expectorated through the wound and some by the mouth. Temperature 102·2°; pulse 104; respiration 24. The pustules on the face had commenced to scab; most on the forearms had a reddened areola, especially the umbilicated ones. Some of the papules were fading; nothing could be seen on palate or uvula. Laryngoscopic examination showed slight congestion of epiglottis and vocal cords. Urine still contained traces of iodine. Evening temperature 101°.

12th.—No fresh spots. The larger pustules had by this time commenced to dry up. The contents of the pustules seen microscopically consisted of squamous epidermic scales, pus-cells, and a great quantity of small spheroidal, transparent, non-nucleated cells, about the $\frac{1}{1000}$ or $\frac{1}{1200}$ inch in diameter. Although the urine was still albuminous, it did not contain any iodine. Morning temperature 100°; evening 99°.

13th.—Temperature normal. Rash almost disappeared, excepting one or two pustules which had burst and continued suppurating and discharging.

14th.—Patient convalescent. Urine still contained a trace of albumen.

Nov. 2nd.—Patient discharged quite well.

STANLEY HOSPITAL, LIVERPOOL.

SUCCESSFUL AMPUTATION AT THE HIP-JOINT.

(Under the care of Mr. RUSHTON PARKER.)

THE following case resembles in many respects those reported in the "Mirror of Hospital Practice" at page 591 of this volume, from the practice of Mr. Spence, of Edinburgh. The point to which special attention may be drawn is the fact, now established by abundant experience, that amputation at the hip-joint, in cases of disease in general, and in exhausting inflammation of joint and bone in particular, is by no means an operation of dangerous magnitude. Amputation at the hip-joint, and also high up in the thigh, in cases of accident, is performed under circumstances attended with a high mortality, and is a desperate undertaking. The influence of age was a second point in the patient's favour; but though the period of convalescence was very protracted, his safety seemed established by the third or fourth day after amputation.

In July, 1874, a boy six years of age was admitted suffering from inflammation of the right hip-joint of eighteen months' standing. There were sinuses, erosion of the head of the femur, real shortening to an extent of about two inches, much tenderness, little pain, and no emaciation.

Excision was performed on the 31st July, 1874, by a subperiosteal method very similar to that described by Sayre, and a double anterior splint of iron rod and iron wire was immediately applied. The acetabulum was found lined with granulations simply. During the after-treatment much purulent infiltration of the thigh took place, and by the month of November the patient was extremely emaciated and the discharges were very fetid. The application of a poultice of figs and milk (referred to by Billroth in the first page of his large work on Coccobacteria, from reading which the idea was derived) in a few days absolutely put an end to the fetor. But the boy was sinking, nevertheless, and it became evident that he must soon die if unrelieved from the extreme pain and tenderness. On 20th Nov. the consent of his parents to amputation was with difficulty obtained.

Amputation was performed on Nov. 21st, 1874, by transfixion of a long anterior and a shorter posterior flap. The blood of the diseased limb was previously returned into the rest of his body by elastic bandaging, and retained there by an india-rubber cord wound obliquely round the perineum and corner of the pelvis, over a pad laid on the external iliac artery. The cord was prevented from slipping down on the outer side by being looped over a bandage which was tightly wound round the pelvis transversely. The operation was almost bloodless, less than an ounce of blood being lost. Ligatures of carbolised catgut were used, and the child laid on his belly for the first few days after the operation, on account of a small sacral bedsore.

He lay in bed for three or four months, and was discharged on 24th April, just five months after the amputation. By that time he was fat and well, though a sinus or two remained. He was last seen about ten months after the amputation, and was quite well in general respects, though a single sinus still remained in the stump.

YORK COUNTY HOSPITAL.

OVARIAN TUMOUR; OVARIOTOMY; RECOVERY.

(Under the care of Mr. HORNBY.)

FOR the notes of the following instructive case we are indebted to Mr. S. Wreford, house-surgeon.

Sarah H——, aged thirty-six, a married woman and the mother of five children, was admitted on the 7th April, 1875, suffering from an ovarian tumour.

Three days after her admission Mr. Hornby tapped her, and drew off 408 oz. of dark-greenish viscid fluid.

On the 22nd April she was discharged, with the understanding that she was to return as soon as her abdomen became inconveniently distended.

After remaining at home for two months, she was readmitted on the 23rd June with her abdomen very much distended, measuring 44½ in. in circumference. Her general health being very good, Mr. Hornby decided to perform ovariotomy.

July 6th.—The patient being put under the influence of ether, and the bladder emptied with a catheter, an incision was made in the median line commencing just below the umbilicus, and extending downwards for about 5 in. When the peritoneum was reached it was at once seen to be intimately adherent to the sac, and in separating the adhesions in front a small opening was made into the sac. The aperture was immediately enlarged by an effort at vomiting, and through this opening some of the contents began to escape. The patient was immediately turned on to her side, and a small quantity of fluid having been allowed to escape, a ligature was placed round the opening to prevent, if possible, any further escape of fluid into the abdominal cavity. After breaking down some of the adhesions in front, the greater part of the fluid was allowed to escape by turning the patient again on to her side. The sac was intimately adherent to the peritoneum throughout its whole extent, and great difficulty was experienced in separating the connexions. Mr. Hornby, however, succeeded at length in breaking down all the adhesions with his fingers, but during this forcible detachment it was impossible to avoid tearing the sac here and there, and there was consequently a further escape of fluid. The cavity of the abdomen was well sponged out with tepid water, a clamp applied to the pedicle, and the edges of the wound accurately adjusted with wire sutures. During the operation, which lasted for about an hour and a quarter, the liver, uterus, and portions of the intestines were distinctly seen to be covered by peritoneum. Immediately after recovering from the effects of the ether, the patient complained of great pain in her abdomen, which was relieved by a hypodermic injection of a third of a grain of morphia. Vomited several times during the afternoon and evening. Evening temperature 101·4° F.

July 7th.—Had a comfortable night up to 5.45 A.M., when she began to vomit again. Complains to-day of a great deal of pain at the pit of the stomach, more especially after drinking. Ordered an enema of an ounce of brandy with an egg every four hours. Morning temperature 100·4; evening 103°.

8th.—Vomited very frequently during the night, but had no pain; slept for about four hours. Tongue clean and moist. Ordered to have nothing but ice and champagne by mouth, and to continue the nutrient enemata. Morning temperature 100·2°; evening 101.

9th.—Has not had so good a night. Two of the enemata given during the night were not retained. Ordered to have

thirty minims of tincture of opium with the next. Morning temperature 99°; evening 100·2°.

10th.—Slept soundly the greater part of the night. During the afternoon had some mutton broth twice at her own request, and it caused no vomiting. There is no abdominal pain or tenderness.

12th.—The enemata, not being retained, were ordered to be discontinued. Has had no vomiting since the 10th. Ordered six ounces of port wine daily, instead of champagne.

13th.—Clamp removed. Wound looks very healthy, there being scarcely any discharge. Not having had an action of the bowels since the operation, a castor-oil enema was administered, which acted freely.

From this time the patient progressed favourably without a bad symptom, and was discharged well on Sept. 1st. A letter received from the patient a month after her discharge stated that she was in perfect health, and had been so ever since.

Observations.—This case is instructive as showing how roughly, under certain conditions, the peritoneum may be handled without serious consequences resulting. The sac was, as before stated, adherent to the peritoneum throughout its whole extent; it was forcibly detached by the hand; some of the fluid contents of the sac escaped into the peritoneal cavity, and had to be washed out with a sponge; and yet the patient recovered without a bad symptom. In the process of adhesion the peritoneum had doubtless undergone some alteration which rendered it much less liable to take on inflammatory action.

ROYAL HANTS INFIRMARY.

CASE OF STRANGULATED INGUINAL HERNIA; OPERATION; RAPID RECOVERY.

(Under the care of Mr. LANGDON.)

C. J——, aged fifty-five years, a labourer, was admitted into the hospital at 11 P.M. on Sept. 4th, suffering from strangulated oblique inguinal hernia in the left groin. He had never worn a truss, and for thirty-six hours had suffered from the usual symptoms of strangulation. He had consulted his parish doctor, who had employed taxis after he had been placed in a bath. It was decided to operate at once, and, after the patient had been placed under the influence of chloroform, this operation was completed without opening the sac. There was very little hæmorrhage, and the edges of the wound were brought together with ordinary silk sutures. Carbolic oil, one in thirty, was applied, and the patient removed to bed.

Sept. 5th.—Patient slept well, and feels very comfortable; no sickness or pain. Pulse 84. Wound not dressed.

6th.—Feels quite well; bowels moved slightly. Wound was found quite healed. All the sutures were removed.

7th.—Patient allowed to get about the ward, wearing a truss. Bowels moved freely.

10th.—Discharged cured.

The diet consisted at first of slops, and was gradually increased.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

THE ordinary meeting of this Society was held on the 9th inst., the chair being taken by Mr. Chas. Brooke, V.P., and subsequently by Sir Wm. Jenner. The subject for the evening was that of Croup and Diphtheria, introduced in a paper by Dr. Semple. There was a large attendance of Fellows in anticipation of a lively debate; nor were they disappointed, for, although Dr. Semple's paper was almost entirely historical in nature, it was followed by a most admirable statement of the points at issue by Dr. West, Sir Wm. Jenner, and Dr. Dickinson. The meeting resolved, on the motion of Dr. West, to refer to the Council the question as to the expediency of appointing a committee of investigation into the relations between croup and diphtheria. At the close of the meeting Dr. Hughlings Jackson introduced a patient affected with spasmodic movements of hemiplegic distribution.

Owing to the length of Dr. SEMPLE'S paper, "On Diphtheria and its relations to so-called Croup," it was read in abstract only. The author began by setting forth the reasons which induced him many years ago to regard as erroneous the doctrines formerly held in Great Britain on what was called "croup," and to propose a new nomenclature for the maladies which that term seemed to include. These reasons were based on his study of the French writings on what was called "diphtheria," together with his own clinical researches into the pathology of the disease so named by Bretonneau. That physician and other French authors regarded diphtheria when it attacked the trachea as synonymous with membranous croup. When the disease now called "diphtheria" broke out at Tours, Bretonneau had previously seen only two cases of croup (to use his own language); but when it showed itself as an epidemic, he studied it carefully in combination with his then pupils, Velpeau and Trousseau. They found a remarkable uniformity in the symptoms and post-mortem appearances, and from the constant presence of the false membrane, Bretonneau applied to the malady the name of "diphthérite." The physician of Tours, however, not only studied the actual features of the disease as it presented itself to his notice, but he endeavoured moreover to solve the important question whether any such epidemic as he then witnessed had ever presented itself before in the history of the world, and the result of his inquiries was to convince him that his "Diphthérite," although under different names, had existed from all antiquity, and had been described in the earlier medical writings. Dr. Semple, however, could not agree with Bretonneau on this point, for he had failed to find in the original Greek of Hippocrates or Aretæus, or in the Latin of Celsus, a description of the false membrane lining the trachea, as in "diphthérite." But from researches into the writings of a more recent period, Dr. Semple is convinced that epidemics of the disease have been accurately described by Spanish, Italian, Sicilian, Swedish, and French physicians, including Herrera, Fonteda, Villa Real, Sgambati, Carnevale, Nola, Glisi, Cortesius Wilcke, Marteau de Grandvilliers, Bard, Starr, and Francis Hane, all of whose works, together with those of prize essayists in France at the commencement of the present century, Dr. Semple had carefully read. In the celebrated essays the authors evidently include under croup three distinct diseases. Soon after the publication of these essays Bretonneau began his researches, in which he confined the term "croup" to those cases in which there was a distinct false membrane in the windpipe, and this view was adopted by his successors of the French school, such as Trousseau, Guersant, Bouchut, Empis, Daviot, Valleix, Barthez and Rilliet. Passing to his own experience, Dr. Semple detailed a few cases of laryngeal diphtheria, and exhibited to the Society a preparation of the larynx and trachea, with the false membrane *in situ*, obtained from the most recent of them. He had compared this specimen with those described as "croup" in the museum of the Royal College of Surgeons, and found that they were exactly identical. He further showed that the German as well as the French pathologists hold the membrane of croup and tracheal diphtheria to be identical, but he deprecated the wide application of the term "diphtheritic" to hospital gangrene, dysentery, &c., as used by Virchow. The author of the paper had arrived at the following conclusions from his clinical and historical researches:—That the terms croup and diphtheria are not to be regarded as synonymous, but that the term croup, as generally employed, comprises at least three very different affections, namely—1, laryngismus stridulus; 2, infantile laryngitis; and 3, tracheal (or, rather, laryngo-tracheal) diphtheria. That diphtheria (although under many different names) has probably existed from all antiquity, and although its features have not been described with sufficient distinctness by the ancient Greek and Roman medical writers, its epidemics have been clearly indicated by Spanish, Italian, Sicilian, French, German, Swedish, American, and British authors from about the end of the 16th century to the present day. That diphtheria as an epidemic did not visit London until about the year 1858 or

1859, the last European epidemic being that present in Florence and its neighbourhood in 1869–70. But although diphtheria as an epidemic has prevailed only at fitful and irregular intervals in the history of the world, sporadic cases have always existed.

Dr. WEST said that he had hoped to hear Sir William Jenner speak on a subject to which he had given so much attention, but that as no one else had risen, he would like to say a few words. Although our best thanks are due to anyone who labours to throw light upon the question of the relations between croup and diphtheria, yet he doubted whether much benefit could be gained from archæological details, interesting as they are. For wonderfully accurate as were the older writers in their descriptions of disease, they looked only to the more striking and evident phenomena, and disregarded those minute details which are to us so essential in making an exact diagnosis between two conditions which may have a superficial resemblance. It was just the same with the older anatomists, who left untouched so many of the finer points, but gave full and accurate descriptions of the more evident. A parallel to this was to be found in the history of diphtheria in olden times. We know now that when the local disease has passed away the series of morbid manifestations still goes on, in a large number of cases, in the form of disorders of the nervous system. Yet even this striking fact had not received mention even by Bretonneau himself. Dr. West compared this oversight to the manner in which the eruption in typhoid fever, when he was a student, passed unnoticed; nor had he himself any note of paralytic symptoms supervening upon cases, which must have been diphtheria, that he had seen in his early days. The question, said Dr. West, is really this: "Croup," as described by Cheyne, a most keen observer—and as so many of us know it—sets in after catarrhal symptoms, with first some degree of hurried respiration, then a noisy cough, then dyspnœa, great anguish, and, if no relief be obtained, a rapid termination in death from suffocation; whilst, if the progress of the disease be towards recovery, this is rapid, and follows on the subsidence of the local manifestations. Cases such as these had been recorded, in which improvement had occurred under bleeding. Cheyne mentions some—one in particular, in which venesection was performed three times in rapid succession, with good result; and he himself (Dr. West) had once bled from the jugular, with recovery. He would ask, was not that a different disease from "diphtheria," where there was rarely any preliminary catarrh, where the child was taken ill with slight febrile disturbance, pain in swallowing, enlargement of the glands in the neck, with great prostration, where laryngeal symptoms may set in, but in a totally different manner from their mode of onset in croup? In the one disease there was exudation of membrane on the fauces, in the other it was wanting; in the one there was albumen in the urine, in the other this was nearly always absent; then in the one, when the symptoms had passed away, when venesection, if had recourse to, would inevitably kill the patient, there was frequently left a long train of disorders of the nervous system. Are these two diseases, or are they only different types of one and the same affection? Both are characterised by a deposit of false membrane, in one beginning in the fauces, in the other commencing in and remaining limited to the larynx. Are we to believe that both are communicable by contagion? He must admit that they did not differ from one another more than the simplest forms of scarlet fever did from the most malignant. Hitherto, however, his opinion had been that they were essentially distinct—the one being a local inflammatory disease of the larynx, the other being due to what might for want of a better name be termed a blood-disease—a constitutional affection. This belief he still held, although he must confess his belief was by degrees growing less positive than before. Dr. West concluded an admirable speech by pointing out that the question could not be settled satisfactorily by any one or more observers acting independently, and he urged the appointment of a committee to inquire into and report upon the subject. The points requiring settlement might be stated as follows:—1. Do the two affections prevail epidemically at the same time? 2. Do the two prevail at the same time, and in the same locality, or is their locality different? Thus, it is well known that croup is far more prevalent in rural than in urban districts—the proportion of cases met with, for example, in Sussex and Cumberland being to those in Liverpool as three to one. 3. Does it ever happen that of two members of a family attacked at the same time the one has "croup" and the other "diphtheria"? 4. Is the disease "croup," as described by Cheyne, ever accompanied by albuminuria, and if so to what extent? 5. Are both diseases followed by symptoms of disorder of the nervous system? Should a committee of the Society be appointed to investigate such and the like questions, he thought it might enable us to arrive at a decision alike satisfactory to individual workers and to the profession at large.

Sir WILLIAM JENNER said that he had come to the meeting rather to listen than to speak, and that he had declined to come and preside on this occasion, because he had, to a certain extent, committed himself to one view of the question. He, like Dr. West, had held for a long time that croup and diphtheria were distinct diseases, and had published that opinion; but a larger experience, among all classes of persons, had compelled him to alter those views. It now seemed to him that the evidence is all but absolutely conclusive on the other side. He would hesitate to say it was proved, but the facts were strongly in favour of the doctrine of identity. The grounds which led him to change his opinion were as follows:—1st. Albuminuria, a symptom held to be characteristic of diphtheria, he had seen in genuine "croup"—croup coming on with catarrh, with no exudation in the pharynx. He had seen several times in such cases the urine loaded with albumen. 2nd. He had seen a surgeon in attendance on a case of diphtheria contract laryngo-tracheal membranous disease, and, moreover, in that case the paralytic sequelæ followed. 3rd. Then the *sthenic* character of croup was not distinctive, for some cases of membranous pharyngitis (diphtheria) presented as great force of febrile disturbance as he had ever seen; and, speaking generally, he could not believe that diphtheria was so asthenic as commonly taught. He thought it was quite an *a priori* view to assume that bleeding would be necessarily fatal in such cases, and, in spite of the great powers of observation of Cheyne, he (Sir William) submitted that that observer had confounded catarrhal with membranous laryngitis in those cases which he records as being relieved by venesection. Similar mistakes had occurred before, as in the epidemic of relapsing fever in Edinburgh in 1818, when the disease was mistaken for typhus, and large bleedings were practised, and this mode of treatment held up as of value in arresting typhus in its early stages. Then the fact that paralytic sequelæ never or rarely followed croup was easily explained, because as soon as diphtheria attacks the larynx recovery is infinitely rare. With respect to the distinction between croup and diphtheria as to *cause*, Sir William stated that he had met with cases of true diphtheria which undoubtedly came on from exposure to cold, and he quoted two instances of this. Finally, he could not see a single reason for believing in the non-identity of the two affections.

Dr. DICKINSON said that he could not presume to put forward his opinions as of much weight, but from his long connexion with the Hospital for Sick Children, he had necessarily seen much of the diseases in question, and had been led to form some conclusions on the subject. From what he had seen, he felt bound to maintain the old view as to the two affections being wholly distinct from one another. The views expressed so ably by Sir Wm. Jenner seemed to him to amount to this: that there only existed *one* cause for membranous inflammation of the larynx, that cause being some zymotic poison. But he (Dr. Dickinson) submitted that the laryngeal mucous membrane, under any kind of irritation, tends to throw out membranous exudation, and he instanced such irritants as hot water, foreign bodies, &c. Exposure to cold acts in the same way, and so does the special poison of diphtheria. Assuming there to be two causes, a difference in the symptoms ensuing can be traced; for in the one there is tendency to prostration and death by asthenia, and in the other the disease runs a sthenic course, there is a limitation of the false membrane to the spot where it is formed, and there is a tendency to death by asphyxia. He would concur in Dr. West's suggestion, that the question should be referred to a committee.

Dr. SEMPLE, in closing the debate, expressed his gratification in a long and animated speech, at the course in which opinion was tending, as confirmatory of much that

he had long held and enunciated on other occasions—viz., that laryngeal diphtheria and membranous croup were identical, a view which he thought was fully borne out by the historical investigations that formed the basis of his paper.

It was then moved by Dr. WEST that it be referred to the Council to consider the expediency of appointing a committee to consider the relations existing between the diseases commonly known respectively as "membranous croup" and "diphtheria." The motion was seconded by Dr. DICKINSON, and was carried unanimously.

Dr. HUGHLINGS JACKSON then brought forward a patient suffering from a spasmodic affection of the right arm and leg. The arm was the more affected; it was constantly moving about, and had been a source of trouble to the patient for eighteen months, requiring constantly to be kept controlled; and even during sleep the man was obliged to lie upon his arm to prevent the movements. Dr. Jackson said that he had brought the case down in order to elicit opinions as to the advisability of division of the nerves of the arm. Division of the median had been suggested by Dr. Weir Mitchell, but on theoretical grounds Dr. Jackson was averse to cutting off too much of the nerve-supply of the upper limb, lest the leg should become more affected. The pathological condition at the root of the affection was very obscure, and all Dr. Jackson could say was that it pointed to disease of the left cerebral hemisphere. He had seen something similar to it, but to a far less marked extent, in children who had been hemiplegic in infancy. The history of the present case was to the effect that seven years ago the man was struck on the left side of the head, the blow being followed later by right hemiplegia; the spasmodic condition, however, was of eighteen months' duration. The movements cease under chloroform, but there remains persistent contraction of the pronator muscles. Woorara had been given with temporary relief, and (contrary to the opinion of anti-vivisectionists) with the production of greater anæsthesia. It was not the "athetosis" of Hammond, although it was similar in some respects to it. Dr. Jackson promised to bring the results of operative measures before the Society.

The meeting then adjourned.

Reviews and Notices of Books.

The Anatomy of the Lymphatic System. II. The Lung. By E. KLEIN, M.D. London: Smith, Elder, and Co.

PROF. KLEIN has followed up his admirable researches on the lymphatic system of the serous membranes by a complete and valuable series of investigations into the arrangement and distribution of the lymphatics of the pulmonary pleura and lung. He has studied them in the guinea-pig mainly, but also in the dog, cat, rat, rabbit, and man. The chief results to which the author has been led are, that there are three freely anastomosing systems of lymphatic vessels in the lung. The first system is found in the walls of the alveoli, and commences as irregular lacunæ and anastomosing canals, which soon form vessels with a special endothelial wall. The more superficial or subpleural lymphatics are arranged in a network from which efferent trunks proceed in the pulmonary ligaments to the root of the lung. The deeper set are perivascular, and are replaced in some parts by lymphatic spaces, lined by connective-tissue corpuscles. A network is formed around the large bloodvessels, and the trunks pass deeply to the root of the lung. The second system is peribronchial, and begins in the outer part of the mucous membrane, by similar lacunæ and anastomosing canals, lined also by connective-tissue corpuscles. After forming a plexus, the larger trunks join the perivascular lymphatics. The third system belongs to the pulmonary pleura, and begins in the same manner; but the canals are fewer, and each lacuna is lined by a connective-tissue cell-plate. These are in *direct* communication by stomata with the cavity of the pleura, and their efferent trunks discharge their contents into the subpleural lymphatics. The communication of the peribronchial and perivascular radicles with the free surface of the bronchial mucous membrane and the alveolar cavities is *indirect*, by means of what the author calls "pseudo-stomatous" tissue. This is a cellular tissue placed between the true endothelial cells. It is composed of a branched and nucleated body, one process of which is turned towards the free surface, and the other towards the deep part of the mucous membrane, where it is continuous with the connective-tissue corpuscles lying in the lymph spaces of the mucosa. When distended it forms a free communication between the surface and the lymphatics; and as Mr. Watney has found analogous structures in the alimentary canal, we seem to be advancing to a clearer conception of normal and pathological absorption. In guinea-pigs unstriped muscular tissue is found beneath the pleura as a definite layer, and lymph spaces exist between the fasciculi. Lymph follicles are contained in the wall of the peribronchial lymphatics of these animals and of rabbits.

The anatomical details are supplemented by some interesting pathological observations on septic pleuritis and on the relations of the lymphatic system to the processes of artificial tuberculosis in guinea-pigs, and of acute miliary tuberculosis in the human subject. The changes in the endothelium covering the inflamed pleura are exactly similar to those found on the serous surfaces in peritonitis. The endothelial cells around the stomata are found in a germinative condition—i. e., they become granular, polyhedral, and their nuclei show more or less distinct constrictions. In addition, the matrix is thickened by an infiltration of lymphoid cells succeeded by an increase in the connective tissue, the lymphatic spaces are filled with lymphoid cells, and in the guinea-pig the subpleural muscular layer hypertrophies. In chronic pyæmia and artificial tuberculosis induced from the pleural cavity, nodular or patch-like growths exist in great numbers in the superficial parts of the lung. These are the alveoli, at first lined with changed epithelial cells, and then with cells much resembling lymphoid cells. They finally undergo central caseation.

Dr. Klein's account of artificial tuberculosis in guinea-pigs differs materially from the observations of Sanderson and Wilson Fox. The latter regards all granulations permeating the lung as analogous in appearance and structure, being all semi-transparent and composed of lymphatic tissue. Sanderson did not distinguish between the perivascular and peribronchial position of the nodules, as did Wilson Fox, but he separated the peribronchial granulations (hyperplastic normal adenoid tissue) from the semi-transparent miliary nodules (blocks of lobular catarrhal pneumonia). To these two kinds of granulations the author adds a third—viz., semi-transparent, cord-like structures, situated in the adventitia of the minor branches of the pulmonary bloodvessels. These perivascular cords are composed of fibres forming a network in which lymphoid corpuscles abound. Their formation is due to two processes—(*a*) an emigration of colourless blood-corpuscles into the perivascular lymphatics with the subsequent development of a stroma, and (*b*) a growth of a network of fibres between a collection of lymph-corpuscles lying outside a lymphatic vessel. The former is endolymphangeal, the latter is perilymphangeal. These perivascular cords were the only abnormal elements present in some lungs studded with miliary granulations, and he therefore considers their appearance as the earliest symptom of the process of artificial tuberculosis. He agrees with Sanderson that many granulations are composed of trabeculæ representing the thickened alveolar septa, and of spaces which are the alveoli

filled with products of the alveolar epithelium. These products are epithelial cells more or less enlarged, and the so-called "giant cells." Lymphoid cells are very scarce, and the appearances are evidently due to a catarrhal pneumonia in intimate connexion with the perivascular cords. These are the only nodules that undergo caseation, and are especially abundant in the more superficial portions of the lung.

The author accepts Buhl's description of a miliary tubercle in man. Young tubercles possess a matrix of peripheral connective tissue arranged circularly, and a homogeneous reticulum without nuclei, enclosing cells smaller than lymph-corpuscles, multinucleated giant cells, and epithelial cells. Buhl considers that all cases of acute miliary tuberculosis are caused by a disseminated catarrhal pneumonia, and that this process differs from genuine desquamative pneumonia only in the presence of giant cells among the germinating epithelium of the alveoli. From an examination of the lungs of seven children who died from undoubted acute miliary tuberculosis, Klein has come to the conclusion that these cases have *at the beginning only* the character of desquamative pneumonia. In the earliest stages the nodules correspond to groups of alveoli and infundibula, distended by a fibrinous material containing granules and small cells. This exudation disappears, and is succeeded by groups of cells, or by one multinuclear giant cell, both derived from the alveolar epithelium. The interalveolar tissue is thickened and transformed into a retiform tissue, which contains lymphoid corpuscles. The giant cells give rise to nucleated cells, which increase the retiform tissue, and also to cells resembling lymphoid corpuscles lying in the meshes of that tissue. Commencing from the centre of the tubercle, the giant cell, as well as the surrounding tissue (after conversion into a dense fibrillar substance) degenerates, and becomes a hard, firm, and débris-like mass. After these necrotic changes have begun, the bloodvessels are surrounded with a true adenoid tissue analogous to the perivascular cords above described, and spherical collections of lymphatic tissue appear in the adventitia of the bronchi.

Thus it would seem from these investigations that in acute miliary tuberculosis the pneumonic process precedes the increase in the adenoid elements, whereas in the artificial form induced in guinea-pigs the formation of a lymphatic structure (perivascular cords) is the primary change, and the blocking up of the alveoli with epithelial derivatives is of secondary occurrence.

We cannot conclude without expressing our very high opinion of the value of Dr. Klein's work. The numerous plates, for the execution of which the Government Grant Committee of the Royal Society have found the means, are models in clearness and delicacy of outline.

A Practical Treatise on the Medical and Surgical Uses of Electricity. By GEORGE M. BEARD, A.M., M.D.; and A. D. ROCKWELL, A.M., M.D. Second Edition. London: H. K. Lewis. New York: W. Wood and Co. 1875.

AN immense amount of labour has been spent upon this work, a second edition of which has just been issued. The book contains a great mass of information, and nearly all the more important facts bearing upon the employment of electricity for the relief of suffering, which have been established of late years, are herein recorded. The first hundred pages are devoted to "Electro-physics," and in them the subject of electricity in general will be found treated of nearly as fully as in works which are entirely devoted to physical subjects. Electro-physiology occupies the next hundred pages, and in them much that is certain will be found diluted by a mass of assertions which the profession at large are not, we believe, inclined to accept. Take, for example, the statement at page 155, that "when the *galvanic* current is applied to a living and healthy motor nerve in a healthy man, contraction takes place only *on closing the circuit*. This fact is constant with either pole, and any direction of the current." If the authors will place the anode over the ulnar nerve of the first available man, use a current of moderate power and *open* the circuit, contraction of muscles supplied by the ulnar will assuredly follow. A mistake such as this is certainly a curious phenomenon in so pretentious a book.

Brenner's investigations on the reactions of the acoustic nerve to electric stimulation are given at great length. He asserts, and of the general truth of the assertion there can be little doubt, that on placing the cathode in the ear and *closing* the circuit a rumbling or sharp ringing noise is produced, and on placing the anode in the ear and *opening* the circuit a noise of different character is produced. These are facts which anyone who is not afraid of a little pain or annoyance may roughly verify on himself. The authors' description of the mode of performing the experiment, however, is a little terrible.

"The operator should proceed calmly and with self-command. After the patient is in position, with his head inclined on the back of the chair or lounge, and one of the electrodes fastened to or held in the hand opposite the ear to be experimented on, a little warm salt water should be dropped in, which can be very conveniently done by squeezing the small quantity necessary to fill the external auditory canal from a small sponge or funnel-shaped glass; and the other electrode firmly pressed on the tongue. It is well to begin with a small number of elements, and gradually increase until a reaction is obtained. The reaction will usually appear when the current is strong enough to produce a contraction of the facial muscles. The patient should at all times be continually and repeatedly questioned, especially if he is unaccustomed to the treatment; for, at first, he may be so distracted *by the flashes of light before his eyes, the contractions of the facial muscles, the nausea, the metallic taste, and the noise of the water in the ear*, and especially by the *pain*, that he may be unable at first to distinguish the true character of the reaction."

The above extract is a fair sample of the literary style of the authors. The slight pomposity of the first sentence, the almost needless details in the parenthesis, the double adverbs qualifying "questioned," the capricious use of italics, and the ungrammatical repetition of the words "at first," are the kinds of blemishes that are abundant on every page.

The next 200 pages are devoted mainly to descriptions of apparatus and the methods of using them, and this perhaps is the most reliable part of the book. What may be called the clinical chapters are comprised in the remaining half of the volume, and we are bound to say that the 250 cases, taken mainly from the authors' practice, are singularly barren in those facts which serve to increase our knowledge of the pathology or diagnosis of disease, and in this respect the volume before us forms a marked contrast to the classical, original, and thoughtful work of Duchenne. There are assertions, too, in this portion of the work which, if not due to carelessness, show a surprising ignorance. At p. 519 we find:—"The fact that in facial paralysis of central origin the electro-muscular contractility is unimpaired, while if the nerve itself is the seat of the injury, the muscles *refuse to respond to either current*, materially aids us in diagnosis." Again, at p. 536:—"In cases of progressive muscular atrophy the electro-muscular contractility is either diminished or destroyed." If a student had written the chapter on "locomotor ataxia," in answer to an examination question, he must assuredly have been plucked, so much is the description of the disease there given at variance with the generally received description. The work, in short, is one which we should be sorry to see in the hands of any student; and, although it will increase the fame of its

authors as electricians, it will scarcely improve their reputation as physicians. There is in it, however, a great deal of information of a practical kind which will be welcome to those who are working at the subject of electricity, and, when another edition is required, if the authors will content themselves with simply erasing about half of the present volume there is no reason why the remainder should not be a convenient, reliable, and most valuable treatise on the subject to which it is devoted.

A Dictionary of Science, Literature, and Art. Edited by W. T. BRANDE, D.C.L., F.R.S.L. & E., late of Her Majesty's Mint; and the Rev. GEORGE W. COX, M.A., author of a "History of Greece," "The Mythology of the Aryan Nations," &c. New Edition, revised. London: Longmans and Co. 1875.

WE recently noticed the new edition of Ure's valuable dictionary. We have now before us another edition of the equally well-known work of Brande. The wider plan of Brande's dictionary, while it confers upon it a more extended usefulness, renders it of necessity a less complete book. Even the three bulky volumes are insufficient for completeness, and while very much that is important is included, it is not surprising to find that much of equal importance has been omitted. It seems almost like ingratitude to write thus of a book which to every student is so useful, and we have no wish to find fault with an editor for defects which he would be almost more than mortal if he avoided. But the truth is a book of this kind is always to some extent disappointing. Everything is to be found in it except just the small fact you want: that is absent.

The scientific revision which ten years had rendered so necessary has been effected fairly well, though not so well as it should have been. The new notation in chemistry has been adopted generally, but not always (*vide* "Clay"), and the formulæ are for the most part correct. Many new discoveries are introduced, but many—as, for instance, the synthesis of alizarin and of tartaric acid—are omitted. In physics we miss many of the modern phrases, such as "Ohm," "Farad," &c., which have become important, and there are similar deficiencies in physiology. Hoppe-Seyler's discoveries, for example, are not noticed under the heading "Blood," and glycogen is omitted altogether. Dozens of other defects of the kind might be pointed out, many of them glaring ones, and we hope that another new edition will not be attempted without a more stringent revision. But, after all, the labour requisite for a new edition of such a work is great, and we are glad to admit that in spite of some defects, Brande's dictionary is still a valuable and, in the main, trustworthy work of reference.

New Preparations.

QUINETUM: THE PURE ALKALOIDS OF EAST INDIA RED BARK.

(THOMAS WHIFFEN, BATTERSEA.)

THE increasing cultivation in India of the *chinchona succirubra*, which, as our readers are aware, yields a large proportion of alkaloids other than quinine, renders it a matter of great importance to introduce these alkaloids as far as possible into medical practice. From the evidence of Broughton, De Vrij, and other well-known authorities, it appears clear that they are little behind quinine in medicinal value. Somewhat larger doses are required than when pure quinine is used; but the results obtained with the mixed alkaloids in India, where, as Mr. Broughton states, pure quinine is now seldom made, are highly satisfactory. It is, indeed, not improbable that some patients who are unable to take pure quinine would not find the same difficulty with the mixed alkaloids. However this may be, it is evident that economical reasons, which with so expensive a drug are of no little importance, should induce medical men to give a fair trial to the preparation.

We have analysed samples of the so-called quinetum and its sulphate, and find that they are exactly what they profess to be.

RICHARDSON'S COD-LIVER OIL EMULSIONS.

We have analysed three preparations bearing the above title, all made by Messrs. John Richardson and Co., Leicester. One is the simple emulsion, another contains quinine, and the third phosphorus. They are, therefore, correctly described. The emulsions are well prepared, have little smell, and are free from rancid taste. They are, in our judgment, more easy to take and less liable to cause nausea than the pure oil, and are, therefore, likely to prove valuable, as they certainly are elegant remedies.

MAGNESILYNE, OR MAGNESIUM CITRATE.

(KINMOND AND CO., LEAMINGTON.)

This preparation, which effervesces freely with water, contains magnesium carbonate and citric acid. We have therefore now a "granular effervescing citrate of magnesia" in fact as well as in name. The application of the title to the common preparation is, in our opinion, thoroughly misleading, and should at once be discontinued.

DR. OSCAR LIEBREICH'S PEPSIN-ESSENZ.

(CORBYN AND CO.)

This preparation, made by a well-known Berlin manufacturer, and introduced by the famous name of Dr. Liebreich, is a solution containing some alcohol, though not enough, it is said, to hinder the activity of the pepsin. The trials we have made with it do not convince us of its superiority over other preparations, and without further evidence we hesitate to recommend it.

D. D. ENCORE WHISKY, DOUBLE DISTILLED.

(BERNARD AND CO., LEITH.)

This new competitor for public favour is pale yellow in colour, mild in flavour, and has but little smokiness, though it has the usual pleasant peaty smell characteristic of Scotch whisky. It is very faintly acid, and analysis proves that it is remarkably free from the fusel oil with which new whisky is generally contaminated, and to which much of the injurious effects of spirit-drinking are with some reason ascribed. The "D. D." is therefore more wholesome and pleasanter, except to a vitiated palate, than the fiery spirit so often sold. On the other hand, however, we cannot admit that it is equal in flavour to that fine mellow fluid which we are sometimes fortunate enough to meet with, from which fire and rawness have alike been removed, not by rectification, but by the subtle chemistry of time.

JOHNSTON'S PATENT CORN FLOUR.

(J. AND G. JOHNSTON, PAISLEY.)

The sample we analysed was well made and quite free from adulteration. Although we always regret that the term flour has been applied to an article which everyone knows to be, like arrowroot, a nearly pure starch, there would now be great difficulty in changing the name, and the article itself has become a necessity. The new "brand" is decidedly superior to one or two others with which we compared it, though we do not assert that it is superior to all.

THE LANCET.

LONDON: SATURDAY, NOVEMBER 13, 1875.

IT is sincerely to be hoped that the Conference of the Examining Bodies—on the invitation of Sir JAMES PAGET, in his capacity as President of the Royal College of Surgeons—to take again into consideration the formation of a Conjoint Board for England, will have a more effective ending than all the past attempts in this direction. This question is a very serious one, and the English bodies occupy a very conspicuous position in reference to it. They cannot touch it again and fail without a display of difference and of selfish regard to their own interests, as distinguished from those of the public and the profession, which would ultimately redound at once to their injury and discredit. There are two circumstances which lead us to trust that they will not again fail to do what the bodies in Ireland have failed to do, and what the bodies in Scotland have not seriously tried to do. The one of these is, that Sir JAMES PAGET has taken the matter in hand, and is in a position to influence the counsels of the College of Surgeons. We have heard some people blame Sir JAMES PAGET for the recent collapse of the conjoint project in England. By what process of reasoning such a serious charge could be supported we scarcely understand. It must now be clear to everyone that it will not be Sir JAMES PAGET'S fault if the Conjoint Scheme ere long is not an established fact in England. The other circumstance is, that the bodies are virtually committed to it. To do the representatives of the co-operating bodies justice, they have never shown a disposition to shirk their duties or to escape from the undertaking in any undignified way. Some members of the corporations which they represented may have done so. But they have not. In addition to this, let it be remembered that no less than three Acts of Parliament have been obtained to enable three of the bodies concerned to join in the scheme. After such measures have been taken on the understanding that the scheme would be prosecuted to its accomplishment, we cannot believe that the obstructives, who are always forthcoming, will any longer be permitted to have their way, or to baulk the party in all the corporations favourable to this reform. One thing is clear, that if the English bodies again fail, the whole aspect of this question will be altered, and fresh legislation will become necessary to put the examining system of the country into a less unsatisfactory form than it is in at present. The system of single diplomas or half-qualifications cannot go on. The fact that the examinations have been made complete and comprehensive only makes it the more absurd that the diplomas should be one-sided and imperfect instruments. There is, practically, no difference between the examinations of the different bodies, but they are only able to give a half-qualification. The College of Surgeons examines in Medicine, and the College of Physicians examines in Surgery; but the College of Surgeons cannot give more than a qualification in surgery. It is true that the licence of the College of Physicians is a double qualification. But this is a unique case, and the fact has only recently been recognised. Then, again, there is the evil of the very number of licensing bodies. Sir ROBERT CHRISTISON has lately tried to make us think that such a system caused a rivalry in examinations—a competition upwards; but the experience of the profession is in exact opposition to Sir ROBERT CHRISTISON'S opinion, and goes to show that the competition of bodies giving mere licences to practise is a competition downwards, of which, there is reason to fear, notwithstanding the Visitation of Examinations, there are yet some bad illustrations.

Under these circumstances we devoutly hope that the English bodies will cordially go to the Conference with a determination to settle their differences and agree to a scheme. Sir JAMES PAGET is too judicious a man to have revived this question without seeing at once urgent reasons for reviving it, and good reasons for hoping to be able to settle it. Some bodies may have to concede some advantages—not least, Sir JAMES PAGET'S own College. But there are times when corporations gain much more than they lose by concession, and, in our opinion, the College of Surgeons will never have a better opportunity of conceding a little for the sake of a great public object than it has now under the safe and respected guidance of its president.

THE social treatment of the insane may be broadly, but not inaccurately, divided into three periods or stages of development: the barbaric, in which the lunatic was simply regarded as a wild and dangerous animal from which society needed protection, and that might be kept in chains, tamed, or destroyed, as convenience should dictate; the "humane," in which some compassion began to be felt for the victim of what was believed to be a supernatural visitation; and the remedial, in which madness has come to be recognised as a malady, and measures have been directed to its cure. There are no hard boundary lines between these phases of policy. They shade off one into the other like all changes of conduct wrought by the growth of intelligence; and the diverse methods or systems may be found in full force in different nationalities at the same epoch; what is obsolete among one people being extant and approved among another by reason of its slower civilisation, or from the circumstance of public attention having been diverted from matters of internal social reform. Occasionally some special prejudice or custom has operated as a drag on progress, and held back an otherwise intelligent nation from rational improvement. For example, the superstitious belief in possession by evil spirits, which has prevailed and been fostered in Roman-Catholic countries, without doubt retarded the discovery, or perhaps we ought to say the adoption, of enlightened methods of dealing with the insane. It is significant, as the present Earl of SHAFTESBURY, then Lord ASHLEY, pointed out in 1845, that "the whole history of the world, until the era of the Reformation, does not afford an instance of a single receptacle assigned to the protection and care of these unhappy sufferers, whose malady was looked upon as hardly within the reach or hope of medical aid." All institutions for mad persons anterior to the era of religious freedom were designed for the safe

custody of a class held to be dangerous to others, but not themselves either claiming, or amenable to, remedial treatment. Again, there can be no question that the custom of slave-holding, and the brutalising *régime* from which it is inseparable, have blinded and blunted the sensibilities of a people in other respects remarkable for their intelligence and enlightenment, to one of the most obvious and urgent teachings of modern science—namely, that mental derangement is distinctly a disease, and susceptible of relief or remedy by measures suitably devised and properly administered.

It is surprising, but unhappily it is notorious, that in the United States the treatment of lunatics can hardly be said to have made much progress even in the stage of development which we have reluctantly described as the "humane." The sort of humanity which sways too many governors of asylums in the United States might indeed be inspired by a rule similar to that said to have been made for the officers of Bethlehem Hospital after the removal to Moorfields in 1675:—"No keeper or servant shall beat or ill-treat a lunatic without he considers it absolutely necessary for the better governing of the lunatic." The state of matters in America would, we fear, be not unfairly described in the language of a paper cited by Dr. JOHN CONOLLY, the great reformer of our English system, in 1847. Speaking of the "non-restraint" system, the writer remarks: "We desire to preserve this name, as many asylums, which still continue to use all the ancient instruments of restraint, endeavour, by professing to practise the 'humane system,' to lead the readers of their reports to suppose that there is no essential alteration made by the discontinuance of the use of those instruments." The governors, and especially the medical superintendents of asylums in the States, will, doubtless, indignantly repudiate the charge of being behind the age, more particularly when it is understood that the imputation involves, as it most assuredly does, a very serious reflection on their professional acumen and social sagacity.

It is humiliating to remember that it was not until three-and-twenty years after the humane reforms effected by the courage and skill of PINEL at the Bicêtre, in Paris, that the deplorable and disgraceful condition of English madhouses attracted public attention. In 1815 a parliamentary committee discovered that atrocities scarcely credible were practised even in Bethlehem. But the time has passed when a modest conciousness of our own shortcomings might restrain the impulse to remonstrate with the responsible managers of asylums in America. The utter futility and wantonness of the system of coercion, whether by mechanical appliances, by seclusion, or by punishment, has been so abundantly demonstrated that it is not only a mistake but culpable to return to these practices. They were cruel to those upon whom they were inflicted, and thoroughly demoralising to all by whom they were carried into effect. Before the system of "non-restraint" was generally adopted in England, and all through the period when it was little more than a name, the keepers of madhouses, and the attendants in their employ, were "low and brutal." The habit of "controlling the violence of their patients by greater violence," and the possession of a power of punishment irresponsibly exercised, were found to deprave the sensibility, to weaken the self-command, and to debauch the character of men and women otherwise kindly, temperate, and of the highest rectitude. The drivers of slaves were not more rapidly and incurably brutalised by their inhuman office and pursuits than the guardians of the insane, under the system of restraint and coercion. The same results must be produced by the like causes operating elsewhere. Nothing short of rigorous interdiction of corporal restraint, the substitution of publicity for secrecy, and the establishment of a vigorous system of outside inspection, by independent visitors, sufficed to cure the evil in the United Kingdom; and the same measures must be adopted in the United States. The cause of humanity is universal in its interests, and international in its obligations. We make no apology for the urgency of our appeal.

But we take higher and more distinctly professional ground than the *argumentum ad hominem* implies. The treatment of the insane has passed beyond the region of mere humanity, and aims to be remedial. Dr. CONOLLY, as quoted by Lord ASHLEY in 1845, described "humane English physicians daily contemplating helpless insane patients, bound hand and foot, and neck and waist, in illness, in pain, and in the agonies of death, without one single touch of compunction, or the slightest approach to a feeling of acting either cruelly or unwisely." It was not that these men were callous or devoid of sympathy for the sufferers on whom they gazed so inertly. The key to their conduct was that "they thought it impossible to manage insane people in any other way." Their excuse was ignorance—an ignorance they shared with the wise men and experts of all other civilised nations. Nothing except ignorance and misconception could have induced "humane physicians" to stifle their natural impulses and stand by while the cruelties prevalent at the time were perpetrated. But the physician who should now sanction or tolerate such treatment would not only find no excuse in ignorance, he would prove his entire incompetence for the care of persons suffering under mental disease. He would be in the position of a physician who should prescribe one of the middle age nostrums, composed of mummy flesh, for an attack of dyspepsia, or of a surgeon who administered a nauseous bolus for the reduction of a dislocated hip-joint. The illustration may appear grotesque, but it is scarcely exaggerated. Nothing has been more conclusively proved by the experience of an extended practice than that the treatment of insanity with restraints is neither rational nor scientific. It is as completely exploded as the treatment of chorea by mechanical appliances. If the medical superintendents of American asylums resort to the old system, they do so in the face of patent facts, and their practice has no claim to be classed as medical, hardly can it be called humane.

"The whole system of an asylum," wrote Dr. CONOLLY in 1847, "must be consistently humane, or it will not be effectual." The experience of nearly thirty years has proved the truth of that assertion. The most recent reports of Lunacy Commissioners by no means prejudiced in favour of non-coercion attest that everywhere the best results have been attained by allowing patients the greatest freedom. Seclusion, even in its most harmless form, has been shown to be rarely, if ever, requisite. And, what is even more surprising—looking at

the matter from the old-fashioned standpoint,—no recourse to narcotic or soothing drugs has been found necessary to allay the excitement a sudden withdrawal of restraints was expected to produce, simply because no such exacerbation of the symptoms of insanity supervened. The scientific, the rational, treatment of insanity has been discovered, as might have been anticipated, to be essentially moral and mental. How unreasonable, in the light of this obvious principle, appears the attempt to subdue fury by passion, or correct and dispel delusions by treachery and deceit. It is scarcely believable, but we are almost forced to the conclusion, that our friends across the Atlantic have not yet mastered the fundamental principles of the remedial system. They adhere to the old terrorism tempered by petty tyranny. They resort to contrivances of compulsion; they use, at least, the hideous torture of the shower-bath *as a punishment* in their asylums, although it has been eliminated from the discipline of their gaols. And worse than all, if the reports that reach us may be trusted, their medical superintendents leave the care of patients, practically, to mere attendants, while devoting their own energies principally to the beautifying of their colossal establishments. It is true that no worthy system of treatment for the insane can be carried out efficiently in an inadequate or badly provided asylum; but it is absurd to lavish attention on the hospital while the patient is neglected. Asylums are no more homes for mad people to live and die in, than hospitals are refuges for the incurable, or receptacles for the dying and the dead. This is a point of vital moment, and one on which the American "mad-doctors" would seem to need especial enlightenment. It would be well if the corollary of the argument could be brought vividly home to our own philanthropists. Refuges for "incurable" patients are needed in the department of mental not less than in that of physical disease. The retention of hopelessly irremediable cases in houses set apart for the cure of temporary maladies is as mischievous in its moral and general consequences to the unsound in mind as to the unsound in body or limb. The admixture of curable and incurable cases cripples energy; it takes the life out of hope, and deepens the shadow of affliction, sometimes to the blackness of despair. While we reason with the ignorance and misconception of our brethren in America, let us not wholly forget the defects of our own system—the fruits of apathy—in some degree, perchance, of a spirit of self-sufficiency. The same general and pregnant truth applies to all phases of the lunacy question: the scientific treatment of the insane no longer consists in the safe custody or even the humane care of a class of sufferers; it is a system of mental therapeutics for the cure of their maladies, and as such alone can it be prosecuted intelligently, or with a reasonable hope of success.

SOME four or five months ago attention was directed to the faulty administration of the Shipping and Emigration Acts by the Board of Trade in their relation to medical officers afloat. It was found by a parliamentary return, moved for in June last, that, within the past two years, 224 persons had sailed as surgeons in various merchant ships who were not registered; and that of this number, 15 were under twenty-one years of age, and must, therefore, have been not only unregistered, but unqualified. This return, and, as we believe, many and persistent journalistic utterances, induced the Board of Trade last month to issue an official circular, calling the attention of their emigration and mercantile marine officers to the present condition of the law on this question. This present condition appears to be that, under the Passengers Acts, every steam-ship whose computed voyage exceeds forty-five days, and every sailing-ship whose computed voyage exceeds eighty days, and the number of passengers—i. e., steerage passengers—exceeds 50, or the total number of persons on board exceeds 300, shall be required to carry a registered medical practitioner. Section 230 of the Merchant Shipping Act of 1854 enacts that every foreign-going ship having 100 persons or upwards on board shall carry a registered medical officer. But these two clauses—the former from the Passengers and the latter from the Merchant Shipping Acts—do not by any means include all the conditions under which medical aid afloat ought to be provided. The Passengers Acts, in the first place, do not recognise cabin passengers at all. Large and powerful steamers are being built to carry first-class passengers, and of course a large number of seamen, engineers, firemen, and stewards. But unless the *emigrant* passengers exceed 50, or the total crew 100 in number, no surgeon need be carried. During the last few months three vessels have sailed from the Port of London with 143, 121, and 162 persons on board respectively. But no surgeon was provided in any case, because the number of the crews and steerage passengers was just within the requirements of the Acts. It seems, too, that the regulations requiring registration are still ignored, inasmuch as two ships have lately sailed from London for Melbourne and New Zealand with parties of 278 and 454 emigrants, but in both cases with unregistered surgeons.

It would appear that there is a desire on the part of the Board of Trade to suppress the active consideration of this question; at all events, a strange apathy exists in performing a palpable and very responsible duty. For, on the 14th of June, a return was moved for in Parliament "of the names of the ships, with their owners and masters, also the nature of the voyage, on board of which those persons under twenty-one years of age have been serving as surgeons whose names are included in the return of 224 persons whose names do not appear in the Medical Register, in continuation of Parliamentary Paper No. 240 of Session 1875." This return has not as yet appeared, and we submit that there can be no possible excuse for any further delay. The materials are of course ready to hand in the office of the Registrar-General of Shipping and Seamen, and can be, as we take it, readily supplied by Mr. EVERARD HOME COLEMAN, who has for many years officially and efficiently watched over the welfare of both crews and passengers afloat. If further delay in the production of that document occurs, we shall perforce conclude that some shipowners who carry "experienced" surgeons under twenty-one years of age do not desire their names to appear in parliamentary print, and that the Board of Trade is aiding and abetting that unworthy concealment.

It may, at the first blush, appear strange that we should care to discuss *seriatim* this question; but, apart from phi-

lanthropic aspects, it must be remembered that the medical service of the mercantile marine has not, until very lately, occupied a specially dignified position in the profession. It has been too often a "refuge for the destitute" of our cloth; and some shipowners, whose only object is to screw and pinch as to expenditure in every possible way, get a cheap article in doctors as in other things, and do not care to inquire if he be "qualified to kill" or not. But so many people of all classes now travel over deep waters that the quality of practitioners afloat should equal, both as to pay and acquirements, that of practitioners ashore; and the main means to this end is to insist that every foreign-going vessel carrying a certain number of persons shall carry also a registered medical practitioner. All the good-class Atlantic, West Indian and Suez Canal steamships carry a surgeon, irrespective of the number of crew and passengers, and treat their medical officer fairly well, both as to pay and prandial arrangements. But owners and agents generally should be more careful as to the kind of men they get; and Sir CHARLES ADDERLEY ought most certainly to look into and take steps to alter the clauses above referred to, which are inefficient and abortive in a superlative degree.

MR. NETTEN RADCLIFFE'S inaugural address as President of the Epidemiological Society, on the 10th inst., will, we think, be read with enlightenment by many. Those who are still in doubt what mystery lurks under the portentous name of "epidemiology," and what strange rites may be practised by a Society so designated, will have their doubts solved. Those who believe that we know little more of epidemics and their causes than our forefathers did will find the ground of belief knocked from under their feet. Those who think that English knowledge on these subjects is but a feeble reflection of German and other continental thought will learn that the reverse is nearer the truth. Finally, those who profess to have an insight into epidemiology will hardly regret, and may probably be grateful for, a statement which shows how England is justified of her medical children in this matter.

Mr. RADCLIFFE took for the subject of his address the progress of epidemiology in this country since the establishment of the Epidemiological Society twenty-five years ago. He contrasted the difficulty of individuals who had begun the study of medicine within that period in apprehending the state of some of the more important epidemiological questions at its commencement with the difficulty felt by those who had begun their surgical studies after the discovery of chloroform to comprehend the state of the operating-room during operations before that discovery. Taking as his illustration the state of our knowledge as to the continued fevers before 1850, Mr. RADCLIFFE proceeded to show how a new era of thought had been inaugurated by Sir WILLIAM JENNER'S researches at that period, which, confirming previous researches of others, had made the specific distinctions of typhus, typhoid, and relapsing fevers the common property of the profession here and everywhere. In order to comprehend the importance of the writings in which these distinctions were set forth, it must be remembered that at that time the distinguishing of varieties of continued fever, except as a matter of conventional convenience, was expressly deprecated by the greatest teachers. Mr. RADCLIFFE described these writings, first, as a revelation to those who up to that time had been bewildered with the attempt to reconcile typhus, typhoid, and relapsing fevers, treated in the same ward, with current teachings. With it the difficulty which had made all true advance in the etiology of continued fevers impossible was overcome. But more: Mr. RADCLIFFE tells us that Sir W. JENNER'S writings were not a revelation only; "they were, indeed, an instauration; they brought medicine back from a seventh heaven of meaningless verbiage into which it had gone astray in treating of epidemics and their causes, to the true starting-point of all epidemiological knowledge—observation at the bedside; they recalled epidemiology from the outer spheres and semi-mystical speculation to the more moderate compass of a hospital ward or of a bedroom, and substituted for the cosmos a common bedstead. In other words, they made clear that the difficulties which had beset a true knowledge of the etiology of the most important class of epidemic diseases in England had arisen solely from an imperfect discrimination of them." This, according to Mr. RADCLIFFE, had been the groundwork of sound epidemiological information since that day: and he proceeded to show how it had influenced, or was influencing, the study of every epidemic disease in our nosology. Further, he showed how it had led to a true knowledge of the phenomena of contagion, by leading to the systematic study of the conditions which influenced the activity of contagions. He illustrated this part of his subject by the phenomena of the localisation of cholera, typhoid, and other diseases; and drew from these the most decisive proofs of their contagiousness, showing how misapprehension on this score had arisen and still arose from fallacious notions of contagion. Mr. RADCLIFFE, after thus showing the conditional action of contagion, next described the light which the study of the intimate pathology of the contagious diseases was throwing upon this subject, and opening fields and modes of contagion previously undreamt of, taking his illustrations from the important pathological researches which are being carried out under Mr. JOHN SIMON'S direction, by the authority of the Privy Council. Observing that it was now becoming possible to subject the communicability of diseases and the conditions of communicability to laboratory test, he next referred to the part played by meteorological changes among these conditions, and, through these changes, stepped orderly and as in ordinary course beyond the region of the earth into the outer spheres. He here showed how recent investigations of solar phenomena, particularly into the sun-spot periods, by linking together the greater cyclical meteorological changes and succession of periods of scarcity and plenty here, with the greater cyclical changes in the sun's photosphere, gave the clue to the study of the remoter conditions to which the term "epidemicity" is more commonly applied.

Having somewhat contemptuously called his hearers from the outer spheres at the beginning of his address, it was rather hard upon them at the end to whirl them back among these spheres, in the tract, as we suppose, of certain typhoons, the connexion of which into the sun-spot period has been, we believe, determined. Mr. RADCLIFFE will forgive us for saying that his flight reminded us of another more cele-

brated flight in the opposite direction, in which the flier, also speeding

"With hop'd success,
Threw his steep flight in many an airy wheel."

Not the least instructive portions of Mr. RADCLIFFE'S address were those in which he showed how the fallacies which had so long hampered English epidemiological research still largely hampered like research in India, where the difficulties under which it is pursued are peculiar, and he might, perhaps, have added, yet imperfectly understood by those chiefly concerned in knowing them.

THROUGH the report that we published last week and the notice that appeared in our advertisement columns, it will have become fully known that the Council of the College of Surgeons has at last determined to appoint a set of Examiners in Anatomy and Physiology, separate and distinct from those in Surgery and Surgical Pathology. The former will consist of nine members, to be elected from the Fellows of the College, and will be known as the Board of Examiners, as distinguished from the Court of Examiners or the Examiners in Surgery. The election of members of the Board will be made by the Council some time during the next month, all Fellows of the College desirous of becoming candidates for the office having been invited to send in a written application to the Secretary on or before Saturday, the 20th inst. The members of the Board will be elected annually, and no Examiner will be allowed to hold office for more than five consecutive years, but after an interval of one or more years he will again be eligible for election.

It must be confessed that the ensuing election is to be looked forward to with some degree of anxiety, for the constitution and quality of the successive Boards will be greatly influenced by the nature of the first. The task that the "Committee on Examinations in Anatomy and Physiology" will be called upon to perform, when it has recommended to the Council the candidates deemed fittest for election, will be both difficult and delicate; but the nice discrimination and good sense of the Committee—which consists of Sir JAMES PAGET, Messrs. PRESCOTT HEWETT, JOHN BIRKETT, HILTON, HANCOCK, and MARSHALL—may be trusted to bring matters to a satisfactory issue. One serious difficulty that the Committee will have to contend with will be to distinguish between candidates who are qualified by previous training and experience to undertake the duties of examinership, and those whose only qualification for the post is the ambition to become members of the Board; in other words, the Committee may not find it an easy matter to make their selection. As to the principle of election, also, there will be some difficulty. Seniority in the Fellowship should of course be looked upon as an extra claim by those who are otherwise competent for the office; but it is to be hoped that seniority alone will not outweigh other more important qualifications. Among the junior surgeons in London there are many who are eligible for the office, so that, if the Committee make its recommendations regardless of the seniority of the candidates, great good will result as far as the examinations in Anatomy are concerned. But the case is different as regards Physiology. Few of the teachers of Anatomy in the metropolitan schools are reputed to have made a special study of Physiology, and the Council may find that, in order to ensure a sufficiently high standard in the examinations in Physiology, it will be necessary to appoint at least two or three professed physiologists. This should be done, even if these Examiners shall have to confine themselves to Physiology; and it is rumoured that such a selection will actually be made.

The new arrangements will, we believe, be completed in time for the January examinations, the results of which will afford some indication of the influence likely to be wrought upon the system of teaching Anatomy that has hitherto obtained in the medical schools of the United Kingdom. If the selection of Examiners be wisely made, and the principles of the examinations be properly carried out, the faulty places in the anatomical and physiological teaching will be speedily detected, and a healthy stimulus will thereby be given to all schools, but especially to those which have lagged behind.

Annotations.

"Ne quid nimis."

CRIMINALITY AND INSANITY.

WE publish this week an original communication from Dr. Maudsley in which he gives the details of a case which lately came under his notice. The case seems to us to be one of such unusual importance that we wish specially to direct the attention of our readers to it, and we wish we could insure that every member of the legal and medical professions should master the few simple facts which Dr. Maudsley sets forth. These facts are briefly as follows.

In September, 1874, Dr. Maudsley was consulted on behalf of a patient in whom he detected symptoms of general paralysis. At the urgent desire of the patient's wife, who could not easily be persuaded as to her husband's very serious condition, he was allowed to go to the seaside under her charge. Having obtained money under some pretext, he suddenly disappeared, and was next heard of at Doncaster, where he had been given in charge for stealing a watch. It appears that he had suddenly conceived the insane notion of going to Scotland, but, finding himself alone in a carriage with a sleeping fellow traveller, he was seized with an impulse to appropriate his watch. For his defence Dr. Maudsley furnished a certificate of insanity, and Dr. Crichton Browne gave evidence at the trial to the same effect. His ordinary medical attendant also gave similar evidence. "But it was all in vain. The surgeon of the gaol stated emphatically that he was sound in body and mind, and the evidence in his favour was received with open incredulity." In consequence, however, of the poor man's previous good character, he was sentenced only to two months' imprisonment with hard labour; and, by the representations of his friends, his discharge was obtained before the completion of the sentence. Owing, however, to divided family counsels, he was not, as he should have been, placed under legal restraint. He again escaped from the custody of his friends, and for the second time stole the watch of a passenger in a train. This time, however, there were found upon him a false beard and moustache and other evidence that he had had a design of committing robbery. On the 7th of December he was sent to the county gaol at Nottingham to await his trial, but, in-

contestable symptoms of insanity showing themselves, he was removed to the county asylum, where he died on August 31st of this year, nearly twelve months after Dr. Maudsley had diagnosed the fatal condition which caused, not only his death, but so much trouble to his friends and, one might say, to the public also. "Comment," says Dr. Maudsley, "upon this case is unnecessary." He states his conviction that "the time has come when it is the duty of medical corporations to exact some knowledge of mental diseases from those upon whom they confer their licences."

There can be no doubt that an affirmative answer is the only one that can be given to Dr. Maudsley's question. At the same time it does not appear to us to be the least surprising that a gaol surgeon should habitually look at a case from the standpoint of criminality, just as it not unfrequently has happened that a professed alienist has looked at a case too much from the standpoint of insanity. The lesson to be learnt, we think, is rather this—that the question of the insanity or sanity of a criminal is one that should be settled solely by medical assessors appointed by the Crown. A common jury is no doubt competent to determine whether or no a certain individual committed a certain act, but it is manifestly incompetent to come to any conclusion as to his state of mind, and it can hardly be blamed for looking doubtfully upon the evidence of persons who may be supposed (rightly or wrongly) to be in some way interested in its decision. It is, we have heard, not unlikely that in the new High Court of Judicature medical assessors may be appointed to advise the judges on medical points, and we should hail such an innovation as a great improvement on our present system. The mere fact that in this case the experts were all in the right, and the gaol surgeon in the wrong, appears to us to affect the question at issue in a very slight degree, and we can hardly blame the jury for coming to the decision it did, although certainly the symptoms of general paralysis appear to have been sufficiently well marked to render the gaol surgeon's difference of opinion very difficult to understand.

Another point of great importance is the second robbery, which clearly ought never to have occurred, and the authorities at the Home Office ought to explain why, when the prisoner was liberated on the ground of insanity, they did not insist on his being confined in an asylum until they should be satisfied, on the certificates of those who had testified to his insanity, that his malady had been cured. The patient had been proved to be a dangerous lunatic, and the authorities allowed him to go at large, and it seems to us to be merely a happy accident that the unfortunate man did not commit murder as well as robbery.

DR. HARDWICKE.

WHEN Dr. Hardwicke became a candidate for the coronership of Central Middlesex, rendered vacant by the death of Dr. Lankester, there was a general determination on the part of the profession in the metropolis to support him as much as lay in their power, although, perhaps, there was an unexpressed regret that a more able man had not come forward from our ranks. We ourselves are thoroughly pledged to the principle of medical coronership, and we unhesitatingly and unstintedly espoused Dr. Hardwicke's candidature. When he was elected it might have been reasonably expected that the profession, without whose aid and co-operation he could not have secured the coveted post, would have received, we will not say gratitude, but certainly considerate treatment at his hands in his official capacity, and that he would protect the dignity of medical witnesses and likewise insist on the necessity of making post-mortem examinations in all cases in which there was any doubt existing as to the cause of death. Have these hopes been realised? Have medical men who have been professionally engaged before him at inquests reason to congratulate themselves upon finding in Dr. Hardwicke an exalted appreciation of the value of medical testimony? The reply is a most decided negative. It cannot be denied that his tenure of office has, so far, been marked by blunders and by a disposition to disparage the importance of medical men and to depreciate medical evidence. Soon after his appointment his singularly indiscreet management of the case of Sir Charles Lyell raised a public storm, which was only allayed by the assurance of Mr. Cross in the House of Commons that, if it should be found necessary, Government would "clip the wings" of coroners. We confess to a feeling of chagrin that this severe rebuke was evoked by the conduct of a medical occupant of the office. Within a more recent period there was a general condemnation of the character of Dr. Hardwicke's remarks on the occasion of an inquest when the word "atrocious" was used in regard to the proceeding of a medical brother. And, lastly, we have the inquest held last week at University College Hospital, in which gentlemen were threatened with pains and penalties for faults they had never committed. A specific accusation was made against a house-surgeon of the institution, Mr. Collyns, which he refuted in our issue of last week, with perfect ease. There was a lamentable want of judgment exhibited by Dr. Hardwicke at this inquest, and the Dean of the Hospital puts it mildly enough when he says that increased order and discretion are needed on the part of the coroner. We must, however, leave the consideration of Dr. Hardwicke's procedures to the superior judicial authority to which the office of coroner is subordinate.

THE DEBATE ON CROUP.

THE paper and discussion on croup at the Medical and Chirurgical Society on Tuesday last cannot be said to have thrown much new light on the subject. The meeting was fortunate in obtaining the unexpected help of Sir William Jenner's presidency. But in spite of the historical research and declamatory energy of Dr. Semple, the graceful doubts of Dr. West, and the clearness and force of Sir William Jenner's argument, it was evident that, as was observed by Dr. West, the last word on the subject has not yet been spoken. Dr. Semple, interesting and important as was his collection of opinions from old writers, yet, in his facts and arguments, rather dwelt on the broad outlines of the question than touched the essential points in dispute. Our readers do not need to be informed that the identity of membranous croup and laryngeal diphtheria is, to him, a fact only needing clearer knowledge and more accurate generalisation for its universal recognition. This he insisted on, rather, however, by claiming the cases in dispute—those of sporadic membranous croup—as cases of diphtheria, than by controverting the objections on the ground of etiology and of association, which are the chief support of the view of the diversity of the two diseases. Dr. West's clear description of the contrasted clinical characters of the two diseases, "croup and diphtheria," was claimed by Dr. Semple as a conclusive argument for his own view of the question, on the ground that the simpler cases which formed the one term of the comparison, which were marked by sthenic, sudden characters, and rapid recovery, in which venesection had, in Dr. Cheyne's and Dr. West's hands, so speedily afforded relief, were really cases of non-membranous, simple laryngitis. Such, it must be confessed, was the impression conveyed by Dr. West's speech, but this was evidently not the meaning he intended to convey. We cannot but think that his remarks corroborated his disparagement of the value of historical

evidence, whether in memory or in written record. Before the delicate symptomatic distinctions revealed by modern research were known, cases could not be distinguished with that accuracy which is essential for their value as evidence on a question of this nature. The concise summary which was given by Sir W. Jenner of the reasons which have led to his change of opinion, first expressed in these columns, left little to be desired as a presentation of the evidence in favour of the unity of "simple" membranous laryngitis and the diphtheritic form. Neither in origin, course, anatomy, nor ending, could a line be drawn between the two diseases which had not been more than once overstepped, from one side and from the other, within his own experience. Dr. Dickinson, in his few remarks, hardly did justice to his case on the other side. An experience which gives his opinion great weight leads him to place the causes of the two diseases in the foremost rank as evidence of their non-identity. Since simple membranous laryngitis may follow the operation of a non-specific influence, he could not accept the view that it is identical with a disease which manifests specific characters. He did not, however, grapple with the fact alluded to by Sir William Jenner, and to which we some time ago referred at length, that diphtheria, allowed by all to be such, may follow the operation of influences in which nothing specific can be traced. Abstract speculation regarding the nature of diseases must not be allowed more than a very slight influence in our generalisations regarding their relations. Upon the facts of their origin, course, and anatomy we must alone rely for our conclusions as to their nature. Such facts may well be collected by the Committee of the Medical and Chirurgical Society, which was asked for at the meeting, but we doubt whether the question will by that means be entirely put at rest.

INDIAN SANITARY REPORTS.

WE had the hardihood recently to make an attempt at condensing within the compass of a short article some of the facts, figures, and conclusions contained in several of these publications, but we confess that the task proved too much for us. Of course, if the study of epidemiology is ever to advance, if we are ever to get an insight into the laws affecting the origin and development of epidemic diseases, we must be content to wait, watch, and record. We regard, for instance, the labours of Dr. Bryden as most valuable in this direction. Differing as we do from him in many of the interpretations which he has put upon the facts he has recorded, we have no doubt that his volumes supply a mine of information and abound in suggestions of a very valuable kind. But we wish we could see a little more careful and systematic study of the facts attending the origin and progress of some outbreaks of disease on a limited scale, made on the spot and recorded at the time, than we find in Indian reports in general.

Among the financial and other reforms about which we hear a good deal from time to time in our government of India, there is one direction in which, as it seems to us, the expenditure might be curtailed with advantage. We allude to printing. The great number, size, and variety of publications that appear under the title of Reports, sanitary, medical, and otherwise, are something bewildering; and many of them are uninteresting to a degree, being made up of pages and pages of figures. The hand becomes wearied with turning over the leaves, and no impression is left on the mind beyond that of a vague pattern of some huge sum in addition about which some one has been ruling a lot of lines in various directions. These pages are headed vital statistics, registers of births, deaths, diseases, vaccination, and what not; and if the reader turns to the letter-press he will find to his dismay, as the reward of his labours, that nowhere is the registration effective, and the conclusions consequently are utterly unreliable. And it can scarcely be otherwise, of course, where such vast populations and such extent of territory are concerned. Moreover, it is not very reassuring to an exact-minded man to find, for example, that "fever" is a term of such amplitude as to include all kinds of diseases in its embrace. If it be necessary for commissioners and others to draw up this vast number of tables, they should be sufficiently forbearing and unselfish to stow them away in official places, or at any rate to make a limited company of their circulating libraries. The cost of printing to the Indian Government must be enormous. We do not deny that some of these books, in blue, green, dirty yellow, white, and straw-coloured covers, are first-rate productions, valuable every way, and a few possess great scientific interest; but it is really time to inquire whether all this writing and printing be necessary. We are curious to know the unfortunate individuals condemned to read these records, and what condition of brain would be induced by the performance of such a feat. Mentally, the task of going through such an ocean of details would far exceed the physical labour of Captain Webb's in swimming the Channel.

THE MANCHESTER INFIRMARY.

FOR many weeks past the professional and non-professional public of Manchester have been in a state of agitation respecting their infirmary. It must be understood that the infirmary, which was built about one hundred and twenty years ago, is situated in a very large open space in the centre of the town, surrounded by many large and important places of business. For some years it has been felt that the resources of the infirmary were scarcely equal to the enormous demands that were made upon them, and that the building had of late become rife with erysipelas and pyæmia, and similar diseases; but by means of costly improvements and the establishment of a convalescent hospital, a fever hospital, and other attached institutions outside the town, matters have until lately been made to work fairly well. It has now, however, been discovered by some members of the administrative that the infirmary, notwithstanding all the improvements that have been made within it during the last twenty years, and in spite of the utmost care, cleanliness, and good management, is by no means as healthy as it had hitherto been supposed, but that according to some it is now little better than a "pest house." Others, on the other hand, indignantly repudiate these insinuations, and allege that the infirmary is one of the healthiest hospitals in the kingdom, and in support of this statement bring forward the evidence of the reports of the Board from year to year, and adduce the weighty testimony of the late Sir James Simpson, who reported very favourably of this institution. The real facts of the case seem to be that, although the infirmary is old and faulty in construction, it has been made clean and wholesome by the excellent management of the medical and lay staffs, and by this only; still it can scarcely be said to be a "pest house." Some correspondents of the *Manchester Guardian* seem to doubt whether any serious attempt would have been made to get rid of the old infirmary if it had not been thought that the valuable site on which it stands would, if put into the market, realise a considerable sum of money. It was at one time imagined that even six or seven hundred thousand pounds might be obtained for the plot of ground, and that with that sum one or two hospitals might be built on more scientific principles. There is a good deal to be said in favour of erecting a new infirmary, but the wisdom

of the suggestion to take the building outside the town is not so evident. It is, perhaps, only natural that the authorities of Owens College should desire to have in the immediate vicinity a hospital in which their students would be able to prosecute their clinical and pathological studies, but it should not be forgotten that one of the most important uses of a hospital is to serve as a sanatorium for the sick poor, whose interests should also be considered. To remove the infirmary to a distance from the centre of the town would entail many inconveniences and great expense on some of the poorer applicants for admission, and the institution would sacrifice much of its utility. To obviate these evils, however, it has been proposed to establish a small hospital or receiving house near the present infirmary, into which urgent cases might be received. The proposal to erect several small hospitals in various parts of the town is scarcely deserving of serious consideration.

What objection is there to pulling down the present building, and erecting a new one on the same site, which is, for a hospital, perhaps one of the finest in any town in England?

THE WATER-SUPPLY AT THE ROYAL RESIDENCES.

THE Report of the Rivers' Pollution Commission just issued gives some important particulars on this subject. Some of the shallow well-water supplied to Osborne is of moderately good quality, but the remainder is unfit for dietetic purposes. Several trial wells sunk upon the estate have supplied palatable and wholesome water of moderate hardness. The water-supply at Windsor is derived from shallow wells sunk near the Thames, and, though hard, is of fairly good quality. Three varieties of water are used at Balmoral, two of which, severally from the Gelder Burn and the Rabate, are excellent; but the pump-water, though clear, colourless, and palatable, is contaminated by drainage, and the Commissioners recommend therefore that this well should be closed, and the Rabate water only used for drinking. A new well might, moreover, be sunk near the Dee, but not less than two hundred yards from the Castle. The water used at Abergeldie is clear, wholesome, and sparkling. The general water-supply is good, but peaty, being brought from Kentore Den, and would be much improved by filtration through sand, spongy iron, or animal charcoal. Sandringham is supplied with water from shallow wells sunk near the house, all of which are much polluted by animal matters, so as to make the water quite unfit for dietetic purposes, and it is, as the Commissioners report, "dangerous water." Abundance of excellent water is, however, obtainable within a short distance of Sandringham House.

LENGTH OF HOSPITAL RESIDENCE IN SCARLET FEVER CASES.

MUCH difference of opinion has been expressed as to the length of the period during which scarlet fever convalescents continue infectious. The authorities of hospitals for infectious diseases in which this disease is treated are, however, called upon to give a practical decision on this point, by sanctioning the discharge of the recovered cases to their homes. The Registrar-General, in his last Weekly Return, published some interesting statistics bearing upon the average duration of the 792 cases of scarlet fever treated in the two Metropolitan Asylum District Fever Hospitals at Homerton and Stockwell during the nine months ending September last. The average weekly number of beds occupied by scarlet fever patients during the nine months was 74 at Homerton and 49 at Stockwell; the cases disposed of during this period, by death or recovery, were 317 at Homerton and 373 at Stockwell. Although the number of beds occupied at Stockwell was 25 less than at Homerton, the numbers discharged, on recovery or by death, considerably exceeded those at Homerton. The average length of hospital residence of the recovered and fatal cases during the nine months, which was seven weeks and three days at Homerton, did not exceed four weeks and five days at Stockwell. Each of these averages understates the mean residence of the recovered cases, as they include the fatal cases, the duration of many of which does not exceed a few days. This does not, however, militate against the value of the figures for comparing the duration of the cases at Homerton and Stockwell. As we pointed out last week, the rate of mortality among the cases treated was almost identical in both hospitals, and it may therefore be presumed that there was but little difference in the nature of the cases admitted. The explanation of the fact that the duration of the cases of scarlet fever treated at Homerton exceeded by 58 per cent. the duration at Stockwell is not therefore apparent. The treatment of infectious diseases in hospitals recommends itself so strongly to sanitarians as the only means for controlling epidemics of this character, especially in large towns, that statistics bearing both upon the mortality in cases so treated, and upon the extent of isolation secured in these hospitals, are at the present time of great value. It would be desirable to ascertain by investigation whether the length of hospital residence which has been adopted at Stockwell is sufficient to secure safety in allowing the convalescents to return to their crowded homes. The hospital treatment of scarlet fever is at present more or less experimental, and the fullest information as to its results is most desirable.

DRINK AND DISEASE.

SOME curious calculations have been made of the proportional amount devoted by the working men of Birmingham to the support respectively of their public-houses and of their hospitals. The figures bear something like the ratio of 30 to 1. £3000 is contributed annually by them to the medical institutions of the town, and £900,000 is spent in drink. The numbers are, on their face, sufficiently startling, and may probably be taken as fairly representative of the state of affairs in most manufacturing districts. But they suggest that a further inquiry might elicit even more startling contrasts. What proportion does the contribution of the working men bear to the total expenses of the hospitals? The medical institutions are for them and for them only. What proportion of the burden do they bear? On the other hand, what proportion of the work of these medical institutions is occasioned by the drink on which they spend so much?

We confess that facts like these suggest a doubt of the value of the time-honoured custom of "support by voluntary contributions." We cannot but feel that the system, in such an instance, fails most completely, and that a radically new system of hospital support, a system of involuntary contribution, should be established and rigidly enforced. Such a measure would at least mete out as absolute a justice as the varying and inaccessible conditions of human life render possible. Let the drink consumed in every town be made to defray such proportion of its hospital expenses as it can be proved, with reasonable probability, that drink has caused. At present we afford to our working classes the freest facilities to drink—nay, more, we put in their way temptations to them irresistible. We remove every obstacle to as free a consumption of liquor as is consistent with the maintenance of equilibrium, and then, with a benevolent appropriateness, we provide hospitals in which the consequences of the drink can be recovered from, ameliorated, or assisted to a euthanasia.

The details of taxation lie beyond our province, but it seems at least a reasonable suggestion that the drink sold within a certain area should be so taxed as to defray the expenses of skilled treatment for those whom drink has prostrated and incapacitated for their work. The obstacle to drinking which such a tax must entail would have a beneficial influence, if slight, yet in the right direction.

THE CRUELTY OF FASHION.

A CONSIDERABLE demand for small birds, especially robins and wrens, has arisen within the last few months for the decoration of ladies' hats, this being the latest requirement of fashion. Not only are the birdcatchers of the Seven Dials and Whitechapel unusually busy, but we have the authority of the proprietor of a large West-end establishment for saying that, great as is the supply, it does not at all equal the demand. We need hardly say that this wholesale slaughter ought at once to be checked, for, as the supply falls short of the demand, we have no guarantee that other birds besides robins are not also destroyed, for no doubt a sparrow in the hands of a clever *artiste* could be made to do duty for a redbreast of brilliant plumage. The wanton slaughter of gulls, terns, &c., which formerly were used for hat decoration, has been stopped by a special Act of Parliament. Apart from the needless cruelty, the destruction of our small birds is a national injury. Whatever legal powers exist should, therefore, at once be put in force, to ensure their protection; and, if these are not sufficient, others must be obtained. We fear it is of little use appealing to the chief offenders—the leaders of fashion. Though the "rights of animals" are rigidly insisted on when the sacrifice of animal life is required for scientific experiment, we have found that these "rights" are seldom respected when the pleasure or convenience of society is concerned.

CONDITIONS OVERLOOKED.

AT the last meeting of the Metropolitan Asylums Board, an important question was interposed between certain data crudely digested, and an inference, or, more correctly, an imputation, which it was sought to deduce from them. Mr. Proudfoot, on behalf of the Finance Committee, presented a report, purporting to show the causes of alleged "great differences between the cost of fever patients at Homerton and Stockwell Asylums." The difference was attributed to "medical extras," those at Homerton "averaging 6d. a day each patient, and at Stockwell 1½d." The chairman of Finance was for sending the report to the committees of the two asylums in a shape which would have amounted to a censure, or at least provoked the Committee of Homerton to interfere with their medical officers. Dr. Cortis, happily, interposed with the proposal that the committees of the hospitals should be requested to give information on such matters as death-rate, and average duration of residence in the two institutions, both of those patients who recovered and of those who died—conditions obviously governing the expenditure, but which Mr. Proudfoot and his colleagues had most ludicrously overlooked. It is strange that points of vital moment like these should be almost systematically forgotten. We have heard of an inspector under the Poor-law Board looking only at the amount of stimulants ordered by the medical officer of a workhouse within a given period, and criticising his policy, without even taking the trouble to notice such particulars as the number of patients admitted, the nature of their maladies, their ages, or the temperature at the time. It is impossible that justice can be done either to patients or doctors, while important questions affecting treatment and its cost are disregarded. It is well that boards, committees, and their most fussy but least intelligent members, should be occasionally reminded of the facts their ignorance and prejudice cause them to treat with contempt.

FATAL OUTBREAK OF FEVER AT FORT CUMBERLAND, PORTSMOUTH.

A SERIOUS and fatal outbreak of typhoid fever has occurred among the recruits stationed at Fort Cumberland, at the entrance of Langston Harbour, Portsmouth. There have been altogether fifty-six cases. Of these sixteen have been well marked, the remainder being of a mild character. Unfortunately there have been four deaths. It is stated that the origin of the epidemic has been distinctly traced to sewage pollution. The whole sewage of Portsmouth, it appears, empties itself into Langston Harbour, and is discharged at the ebb. It has been ascertained, however, that instead of being always thus discharged, the sewage has repeatedly been pumped into the harbour at the flood tide, and, consequently, instead of being, as intended, carried out to sea, it is brought in shore and deposited on the mud-banks in close vicinity to the fort. It is also stated that other cases of typhoid have made their appearance at the artillery barracks at Hilsea, a point higher up the harbour. The whole subject is being inquired into by the medical department. The sick have been isolated and treated in a temporary hospital hut at Eastney, and the recruits, 130 in number, have been removed to Forton, on the Gosport side of the water.

CHOLERA IN SOUTH INDIA.

REFERRING to the prevalence of cholera in India, it has been suggested that the Prince of Wales, in his tour through the Madras Presidency, will cross the track which the disease has been making during the last four months, especially in the neighbourhood of Trichinopoly and Madura, and that a large concourse of Hindoos is generally the nucleus from which the disease propagates itself. It is improbable that cholera will become epidemic at this season, and still more improbable that the Prince will neglect the advice of those by whom he is accompanied. We may be quite certain that the latest intelligence will be available in regard to every district of India through which the Prince may be likely to pass, and that any alterations will be made in the programme of His Royal Highness's tour that may from time to time be deemed expedient.

THE MIDLAND MEDICAL SOCIETY.

THE Inaugural Lecture of this Society was given at the Great Western Hotel, Birmingham, on November 13th (Dr. James Johnston, Physician to the Queen's Hospital, and President of the Society, in the chair), by Dr. B. W. Richardson, F.R.S. A large gathering of the medical men of the Midland Counties assembled to listen to his admirable address "On the Treatment of the Dying," and testified by earnest attention and frequent applause their appreciation of the ability and scientific knowledge displayed by the lecturer in dealing with this important subject. Dr. Richardson divided his lecture into four chief parts: first, a definition of the class of cases which are said to be *in extremis*; secondly, a correction of the old and general terms which have been used to designate the modes of death; thirdly, the actual modes of death as they may now be understood by the light of modern science; and, lastly, the specific modes of treatment in certain cases where death is imminent and, but for the resources of modern science, inevitable. Nitrite of amyl, transfusion, the administration of powerful doses of ammonia, and artificial respiration

formed prominent subjects of illustration, and a new instrument for artificial respiration was exhibited. Mr. Oliver Pemberton, as ex-President of the Midland Medical Society, presented, on behalf of the members, to Mr. James Harmar, who has occupied the post of treasurer during the past ten years, a handsomely illuminated address, expressing the warmest thanks of the fellows and members for the excellent manner in which his duties have been performed, and their hearty appreciation of the devotion and energy he has exhibited in the onerous and too often thankless office of treasurer.

DUBLIN HOSPITAL SUNDAY FUND.

THE second annual collection on behalf of this fund will be held on next Sunday, the 14th inst. The amount collected during last year was £3306, which, although a small sum as compared with the total income, £23,500, of the eight hospitals which participated in the benefits of the fund, was yet a substantial and valuable addition to the resources of those institutions. The demands on the fund this year will be greater than last, as some institutions which stood aloof will this year receive a share. The council state that they are glad to say that the Hospital Sunday collection has not injuriously affected the subscription-lists of those institutions which supported the movement last year, that many persons who declined to join last year have now offered their hearty co-operation, and that the number of churches and congregations supporting the movement has considerably increased.

BULLETS AND BRAINS.

THE manager of a New Jersey paper has for the last seven months been known as "The Editor with a Bullet in his Brain." He was shot in his own office in March last, and recovered so completely that his assailant was released on bail, but relapsed, and died on the 24th of last month. A post-mortem examination was made, and "the bullet was found encrusted within the tentorium, beneath the posterior lobe of the right hemisphere." Three abscesses were found on the right hemisphere, there was marked congestion of the pia mater on the floor of the right ventricle, especially on the right side; the cerebellum was wholly uninjured. The opening (made by the bullet) was an inch to the right of the occipital protuberance, and half an inch above the groove of the right lateral sinus. We may expect further particulars of this interesting case.

MUSCULAR CONTRACTILITY IN A DECAPITATED CRIMINAL.

M. ONIMUS has had the opportunity of examining the muscles of a decapitated criminal shortly after death. He found that two hours after execution the right auricle beat spontaneously. The ventricle was quiescent, but the slightest stimulus applied to it caused it to contract. After the lapse of five hours, constant currents applied to the skin caused contraction of the subjacent muscles, though the same stimulus applied directly to the nerves no longer induced contraction.

SURGEONCY TO THE QUEEN IN IRELAND.

THE lamented death of Mr. John Hamilton, of Dublin, necessitates the appointment of a successor as Surgeon to the Queen in Ireland. Among others who may reasonably hope for this honour is Mr. Rawdon Macnamara. Mr. Macnamara is an Irish surgeon of eminence, the representative of the Irish College of Surgeons in the General Medical Council; an ex-president of the College; an author of some repute in medicine; an M.D. *honoris causâ* of the University of Dublin; surgeon to the Meath Hospital, &c.

SOME extremely interesting statistics have been published within the last few days in Paris respecting the extent and conditions of insanity in France. The physicians signing the report are of opinion that at least half the insane people in Paris had insane progenitors of more or less remote consanguinity. It is stated that there is a preponderance of single over married lunatics, but there are so many elements to be considered here that the deduction is not of much value. In Paris there is one lunatic in every 946 inhabitants. The French mind is found to be more liable to mental derangement between thirty and forty years of age than at any other period of life. The political throes through which the country passes, as may be expected, give a distinct character to mania. During the siege of Paris in 1870-1 many men went mad in endeavouring to devise means for annihilating the Germans, and the attempt to frame schemes of army reorganisation is found to have unhinged more than one. The report urges the desirability of making a thoroughly practical study of insanity a part of the education of medical men.

A SERIOUS outbreak of enteric fever is said to prevail at Stairfoot, a small village near Barnsley. About thirty cases have already been reported to the Barnsley rural authority. In one house a man was found lying ill on the floor in a state of nudity. In another, it was ascertained that a person slept during the day in a bed which at night was occupied by fever patients. After such painful disclosures the following resolution seems hopelessly insufficient to meet the emergency:—"Seeing, however, that Ardsley (in which township the infected village lies) is about to have a local board of health, it is not considered desirable that any action should be taken, but the sanitary officer is to do all in his power to prevent the fever extending." This is an easy way of evading obligations.

IT has been pointed out that one good result of the Prince of Wales's visit to India will be in calling attention to the water-supply of Madras, which for a long time has been in a very unsatisfactory state. The Bishop of Madras has lately written strongly to the Government on the subject. The water which the citizens drink is said to be that which has percolated through graveyards where the victims of typhoid and cholera lie buried. In expectation of the Prince's sojourn at Government House stringent measures will be taken to ensure purity of water. It is significant that since 1860 two governors have died in this particular building, one from cholera and the other from enteric fever.

WE understand that a new association for obtaining the repeal of the Contagious Diseases Acts has been formed. It will describe itself as the Social Purity Alliance, and, if report speaks truly, will appropriately have the distinguished aid of Mr. Theodore Tilton, of New York, in its propaganda. The opponents of the much-abused Acts are to be congratulated on the accession of such a coadjutor as Mr. Tilton. For the sake of the mistaken people who have taken up a senseless cry, it is to be hoped that the announcement is true. The utter ridicule which would attach to them in a crusade with such surroundings might do what reason, facts, and statistics have failed to do.

THE town of Crediton, in Devonshire, is suffering severely from an epidemic of enteric fever. There have been reported up to this date 40 cases. The local sanitary authority is suspected to be apathetic in the matter; at all events it has been considered necessary to stir it up to a sense of the general peril by a deputation which clamoured for immediate suppressive measures.

A MOVEMENT is on foot for establishing a testimonial to Dr. Webster, J.P., in recognition of his valuable public services. The testimonial will take the somewhat unusual form of a trough and drinking fountain, to be erected in Dulwich, in which locality Dr. Webster practised for many years, in fact since 1815, although latterly his time has been completely taken up by his self-imposed duties in connexion with various public institutions and bodies. Judging by the articles we read in some of the lay papers, Dr. Webster must have a host of friends and admirers. We hope his useful career is far from closing.

IT seems rather hard that a policeman's differentiation of drunkenness from epilepsy should be considered absolute in the face of evidence given by other witnesses in favour of the latter hypothesis. A few days ago a gentleman was charged at the Westminster Police Court with the stereotyped crime of being "drunk and incapable." After the constable's deposition was taken, the gentleman's servant swore that his master was subject to epileptic fits. However, as the defendant elected to have the case settled at once, a penalty of five shillings was imposed, which terminated an affair that might have been made a *cause célèbre*.

AT the quarterly meeting of the Hartlepool Town Council last week, Dr. Moore remarked that during a residence in the town of over twenty years he never knew enteric fever to be so prevalent there as now; several cases, out of fifty which he was attending, were of unusual severity. He expressed the opinion that something was radically wrong with the drainage, and he thought it was the imperative duty of the Council to give the matter their most earnest attention.

IN London last week 1583 deaths were registered, including 1 from small-pox, 40 from measles, 129 from scarlet fever, 12 from diphtheria, 51 from whooping-cough, 23 from different forms of fever, and 24 from diarrhœa. Different forms of violence caused 47 deaths. The three Metropolitan Asylums District fever hospitals contained 264 scarlet fever patients last Saturday.

LADIES with a *penchant* for the practice of medicine, who have received more than one rebuff in the British Isles, appear to have met with more favour on the continent. Friends of the aspiring fair, have, it is stated, been so successful in enlisting sympathy on their behalf as to be able to announce the opening at Brussels of a School of Medicine for ladies on the 1st of December next.

FROM Japan we learn that a mysterious disease "which has hitherto baffled the investigations of European physicians" has broken out among the soldiers of the Imperial Guard. Thirty-seven men have already died. A special court of inquiry, composed of medical men, has been appointed to report on the disease.

WE have instituted inquiries into the facts of the case an account of which appeared in the daily papers on Thursday last, under the heading "Strange Hospital Treatment at King's College Hospital." As the inquest is adjourned, we refrain from making any comment at present.

LAST week the Vivisection Commissioners terminated their meetings for the taking of evidence, but will assemble again in the early part of December for the consideration of the report.

WE regret to learn of the very sudden death of Dr. Thos. Sarvis, a medical practitioner resident in Bethnal-green. Dr. Sarvis had been for many years in the Poor-law service.

OUR DOMESTIC WATER-SUPPLY.

IN directing the attention of our readers to the quality of the food that we eat, the water that we drink, and the air that we breathe, we not only supply information to those whose province it is to prescribe for and endeavour to cure the ills to which flesh is heir, but direct also into the proper channels the largely increasing class of those of our own and of allied professions whose care and concern it now is to prevent sickness and mortality among all classes of the teeming population of the kingdom. "The water that we drink and the water that we ought to drink" is the text of one of the most valuable Reports that has ever issued from an Imperial department. The sixth and final Report of the Rivers' Pollution Commission, which has just appeared, forms a most exhaustive document of more than five hundred pages, and includes, besides, maps that show the geological, hydrographical, and other aspects of the British Isles, and also the polluted river basins of the kingdom. The inquiries have extended over a period of more than six years, during which time the wells, springs, streams, and gathering grounds, from which a large number of corporations, local boards, and private companies derive their water, have been examined. The Commissioners have also analysed numerous specimens of spring, lake, and well waters supplied to communities for domestic purposes, and samples from the Cumberland, Westmoreland, and Lancashire lakes; and the springs issuing from important geological formations—as the chalk, greensand, carboniferous limestone, great oolites, and granite—have been likewise analysed, wherever the chemical examination of such samples promised to throw important light upon the effect on water of storage in large lakes, or of percolation through particular strata. These latter observations were specially necessary, because, as the Commissioners report, the numerous processes for cleansing water once contaminated with sewage or other similar noxious matters, as well as the so-called self-purifying power of streams contaminated with sewage, are altogether untrustworthy, and indeed practically inoperative. The works of eight private companies, who daily distribute upwards of one hundred million gallons of water to the inhabitants of London, have also been carefully inspected, an official work hitherto never before attempted in detail, and this inspection has been supplemented by the analysis of a large number of samples of rain-water, collected for the most part at a considerable distance from towns, with the object of ascertaining how far water which has undergone the natural process of distillation becomes contaminated before it reaches the surface of the earth as rain. As agricultural operations tend more or less to contaminate water, numerous samples have been submitted to analysis, collected from outfalls drawn by cultivated and pasture lands, both unmanured and dressed with various descriptions of manure. Sea-water has been also examined analytically to illustrate the ultimate disposal of the impurities which the various forms of land water carry with them to the ocean. So that, to quote *verbatim* from the report, "water has been thus followed through the complete cycle of its migrations; it has been caught as it descended from the clouds soon after its condensation from colourless and invisible vapour, collected as it flowed in streams after washing the surfaces upon which it fell, examined after it had penetrated to various depths through different geological strata, and, finally, it has been investigated after it had become part of the great mass of the ocean."

The report is very systematically and conveniently arranged under four heads—(1) the chemical examination of potable waters generally; (2) the classification and che-

mical composition of the potable waters of Great Britain; (3) discussions of special importance in connexion with the wholesomeness of certain kinds of water; (4) the condition of the water supplied to the metropolis, to a large number of cities, towns, villages, and rural districts throughout the country, and to the residences of Her Majesty and the Prince of Wales, which latter include Osborne, Windsor Castle and Frogmore, Balmoral Castle, Abergeldie, and Sandringham. There are also twelve appendices referring specially to rain and drainage waters, the quality of the metropolitan water for four years consecutively, the water-shed and geological strata of the upper Thames, statistics of water-supply and mortality, tables illustrating the improvements of public health which result from proper works of drainage and water-supply, a special report on the cholera outbreak in the parish of St. James's, Westminster, in 1854 (with an illustrative map), and the analysis of potable waters by Dr. Frankland and Mr. H. L. Armstrong. Each and all of the parts into which the Report is divided will be noticed in further articles, as well as the appendices above-mentioned. The Commissioners have arrived at the following conclusions and recommendations: (1) That as to the chemical quality of water from different sources, rain-water collected at a distance from towns upon specially cleansed surfaces, and kept in clean receptacles, contains the smallest amount of total solid impurity; (2) that rain-water collected from the roofs of houses and stored in underground tanks is much more impure, and is often polluted to a dangerous extent; (3) that water collected from uncultivated land and allowed to subside in reservoirs, or filtered through sand, constitutes good water for domestic purposes; (4) that water collected from the surface or drains of cultivated land is always more or less polluted with organic matter, even after subsidence in lake or reservoirs, and hence is not good for domestic purposes; (5) that surface-water, draining wholly or partially from cultivated land, should be always efficiently filtered before being used; (6) that a large proportion of the river waters of Great Britain are dangerous, or are rapidly becoming so, from drainage from land, towns, and manufactories; (7) that shallow well-water is usually saturated with leakage or soakage from privies, drains, or cesspools, but it is generally, in spite of these disgusting and dangerous matters, bright, sparkling, and palatable; (8) that of the different varieties of potable water the best for dietetic purposes are spring and deep well-waters. It is concluded that polluted water cannot by any existing processes be rendered wholesome, that the propagation of epidemic diseases by polluted water is now so evident that it may be classed as a fact, that the mortality is not influenced by the hardness of potable water, that there is no trustworthy evidence as to the definite improvement of water by filtration, that if mains are properly laid no deterioration of water in its transmission need ensue, and that the constant-supply system is more sanitary and more economical in its results than any other.

In summarising the conclusions as to the metropolitan supply, it is reported that the Thames above the intake of all the companies receives the sewage of a large number of towns and other inhabited places, the washings of a large area of highly cultivated land, and the filthy discharges from many industrial processes and manufactures. The river is used also for bathing, for the washing of sheep, cattle, and dirty linen. For these and other reasons it is recommended that the Thames should be entirely abandoned as a source of water for domestic use. The same recommendations are also recorded (and on account of similar causes) as to the Lea. It is recommended that the public pumps should be all closed except that near the south-east entrance to Kensington Gardens and one at Maritime Houses, in Mile-end Old Town, but that the use of the water supplied by the Kent Company, from deep wells in the chalk at Deptford, should be continued and extended. The proposed supply of water to the metropolis from North Wales and from the Cumberland lakes is considered costly and unnecessary, but an abundant supply of spring and deep well-water can be procured in the basin of the Thames, at a moderate distance from London, so that the metropolis and its suburbs can, with efficient management, be supplied on the constant system, the water being, before delivery, softened with lime. To inaugurate the introduction of such a system it would be necessary either to throw open the metropolitan water-supply to the competition of new private companies, or to transfer the control of that supply to a responsible body invested with the necessary powers for the purchase of the existing works and the acquisition of so much spring and deep well water as may be necessary. We have continuously and persistently advocated the latter scheme as the one thing needful in this gigantic and superlatively important matter, and are, therefore, very glad to find that the Commissioners give it a very strong comparative preference. The summary of conclusions and recommendations as to the rural districts must be postponed; but we may fitly end by complimenting very highly the Commissioners, and by urging their recommendations (as regards London) upon the attention of the Corporation and the Metropolitan Board of Works. No skilled Report was ever published at so happy a time, if these august bodies only know how to make it serve their own laudably ambitious purposes. We may remind them that water is of more importance than gas.

Correspondence.

"Audi alteram partem."

PROFESSOR MACLEAN, C.B., ON THE TRUE COMPOSITION AND THERAPEUTIC VALUE OF WARBURG'S TINCTURE.

To the Editor of THE LANCET.

SIR,—Dr. Carl Warburg, late of Vienna, now of London, acting on the advice of friends well acquainted with the antipyretic properties of his tincture, has communicated to me for publication the formula for its preparation, which I accordingly give below. Thirty ounces of the tincture, according to the formula, were prepared in my presence in the laboratory here.

It is well known that up to this time this has been a secret remedy. It is no business of mine to defend its author from the charge of vending a secret medicine, which he shares in common with some other members of the profession not unknown. The simple truth is that Dr. Warburg knew he had hit on a remedy of great therapeutic value, and, under the pressure of the *res angusta domi*, hoped by its sale to maintain his family.

The feeling in the profession against secret remedies was so strong that his expectations, after many years of trial and many disappointments, have not been fulfilled, and, as I have said, he has at last, wisely as I think, resolved to make his secret known.

Before passing from this part of my subject, I may quote, as pretty nearly expressing my own opinion on the subject of secret remedies, the following passage by the late Dr. James Johnson: — "No one will accuse us of favouring secret nostrums, but if the inventors of remedies will not publish their compositions, this is no reason why we should not test their efficacy when they come from practical and scientific men. Would any man in his senses, or who has any regard for the welfare of his patients, refuse to administer James's Powder, Battley's Sedative Liquor, or Ruspini's Styptic, because the inventors refuse to make

known the composition of these remedies? Dr. Warburg has supplied gratuitously immense quantities of his febrifuge to the profession, and continues to do so, in order that his statements respecting its properties may be fairly put to the test. This is, perhaps, as much as could be expected." Dr. Johnson concluded his notice of the tincture by inviting "the attention of our brethren in this country to this remarkable preparation."

I first became acquainted with the remarkable properties of Warburg's tincture in the following manner. Many years ago, when attached to the Residency of Hyderabad in the Deccan, word was brought to the Resident, the late General James Stewart Fraser, that his son-in-law, the late Dr. Thomas Lancaster Bell, then employed as statistical surveyor of the Deccan, had been brought into the station of Warrunghal, about eighty miles from Hyderabad, in an almost comatose state from remittent fever, caught in a neighbouring jungle, where he was carrying on some scientific investigations, and that but slender hopes were entertained of his recovery. I hastened to his assistance. On arriving at the station I approached the house where the patient was from the rear, and seeing many sheets and other articles of bedding hanging out to dry, I naturally interpreted this into a mournful signal that all was over, that in fact I had arrived in time to bury but not to save my friend. Entering the house I was joyfully surprised to see Dr. Bell seated in an arm-chair in a state of complete convalescence. I then learned that he had been brought by his servants to the station just as an exacerbation of his fever had set in, being the third or fourth of his attack. Dr. Bell had taken quinine freely when first attacked, but was quickly reduced to such a condition of mental confusion as to be incapable of directing the treatment of his case. When seen by the medical officer of the station he was in a most alarming condition, and it was too evident that another exacerbation would prove fatal. It so happened that an officer belonging to the Mysore Commission was visiting a friend in the cantonment who was not only well acquainted with the efficacy of the tincture in malarial fevers, but had a supply of it with him. In the desperate circumstances of the case the station surgeon administered the remedy; it was followed by a profuse but not exhausting action of the skin (hence the drying process which had alarmed me), the fever did not return, and the patient made a rapid recovery.

After such an experience as this, I did not fail to use it in similar cases, as opportunities offered, and by its means rescued many who were in as great peril as in the case related above. My experience in the treatment of malarial fevers by Warburg's tincture has not been confined to India. My friend and colleague, Surgeon-Major Madden, will remember the case of a young officer of the Royal Engineers, who had the misfortune to be quartered in a building much below the level of the surrounding ground on which stand Brompton Barracks, Chatham, where he was nightly exposed to the poisonous emanations conveyed by the wind from the unwholesome marshes of the Medway. He contracted a sharp remittent fever, which resisted quinine given in free doses. The case became alarming, and I was asked to see him. I at once administered Warburg's tincture in the manner to be presently described, and this young man never had another exacerbation.

A supply of this tincture was sent to the Gold Coast for use in the late expedition, but from all I can learn it was not much used by the medical officers of the force. After the war the *Victor Emanuel*, that model hospital-ship, now unfortunately dismantled, was anchored off Netley. From the medical stores of this ship I obtained all the "Warburg" remaining, and used every bottle of it in the treatment of the formidable fevers disembarked from the Gold Coast at Netley, in every case with success when not complicated with hepatic abscess.

I have only to add, in concluding this account of my personal experience of the remedy, that in the article on Malarial Fevers contributed by me to Dr. Russell Reynolds's System of Medicine, I spoke highly of this febrifuge, for which I was taken to task by a writer in the *Indian Annals of Medicine*; and for the last fifteen years, in my lectures on Tropical Medicine here, I have made known its value to the gentlemen belonging to the public services going through the course of special instruction in the Army Medical School.

To the best of my knowledge Warburg's tincture was first introduced into Southern India, for use on a large scale, by the late Lieut.-General Sir Mark Cubbon, K.C.B., Commissioner of the Mysore Province, who will long be remembered in India as one of the most successful administrators of his time, and of a service prolific in splendid examples of a governing race. Having himself used the remedy with success, he placed at first 500 and subsequently 1000 bottles of it at the disposal of the late Dr. C. J. Smith, being well known as surgeon to the Mysore Commission. Ere long its reputation was established at Mysore among the officers of the Commission (much exposed to malaria in the discharge of their duties), and I believe I am right when I say that none of them ever ventured into a malarious locality without being armed with "a little bottle of Warburg."

I have not space at my command to say more of its use in Southern India, where it was always better known and more used than either in the Bengal or Bombay Presidencies. Many great engineering works in Southern India, carried on in "deadly jungles," were brought to a successful issue mainly by the protection afforded to the workmen by this medicine. Some remarkable evidence on this point was placed before the Royal Commission which inquired into the health of the Army of India by my friend Major-General Cotton, R.E.

I have only to add that many very eminent members of the profession in this country, among whom I may instance Sir Andrew Halliday, the late Sir James Gibson (Director-General of the Medical Department of the Army), the late Dr. Babington, Mr. Skey, and many others, were led to use this febrifuge, and have left on record strong evidence of its value as a therapeutic agent. The same is true of many distinguished physicians and teachers on the Continent.

It will be seen that quinine is the most important ingredient in the formula, each ounce bottle containing nine grains and a half of the alkaloid. Its presence has been detected by every chemist who has attempted its analysis, and never doubted by any medical man of experience who has used the tincture. Many will say, "'After all,' this vaunted remedy is only quinine concealed in a farrago of inert substances for purposes of 'mystification.'" To this objection my answer is, I have treated remittent fevers of every degree of severity contracted in the jungles of the Deccan and Mysore, at the base of mountain ranges in India, on the Coromandel Coast, in the pestilential highlands of the northern division of the Madras Presidency, in the malarial rivers of China, and in men brought to this hospital from the swamps of the Gold Coast, and I affirm that I have never seen quinine, when given alone, act in the manner characteristic of this tincture; and although I yield to no one in my high opinion of the inestimable value of quinine, I have never seen a single dose of it given alone, to the extent of nine grains and a half, suffice to arrest an exacerbation of remittent fever, much less prevent its recurrence, while nothing is more common than to see the same quantity of the alkaloid in Warburg's tincture bring about both results.

I am prepared also to hear that I am giving undue importance to this remedy. But I cannot forget that, taking one year with another, fevers destroy twice as many people as small-pox, cholera, and all other epidemic causes put together.* Therefore it is that a therapeutic agent vouched, on testimony which I submit is trustworthy, to be more efficacious in a certain class of diseases than any other known remedy, is a matter of supreme importance to our native fellow-subjects, and to the well-being of the sixty and odd thousand British soldiers who hold this great possession for the Crown and people of India.

In conclusion, I venture to express a hope that, the reproach of secrecy being now removed, a more extensive and fair trial may be given to this remedy, particularly in the public services, than it has yet had, and that, if it be found to be such as I have described in this notice, its author will not be left to find his only reward in the consciousness of having deserved well of his kind.

The tincture is administered in the following manner:—One half ounce (half of a bottle) is given alone without dilution, after the bowels have been evacuated by any convenient purgative, all drink being withheld; in three hours the other half of the bottle is administered in the same way. Soon afterwards, particularly in hot climates, pro-

* Dr. Cornish, Sanitary Commissioner, Madras.

fuse, but seldom exhausting, perspiration is produced; this has a strong aromatic odour, which I have often detected about the patient and his room on the following day. With this there is a rapid decline of temperature, immediate abatement of frontal headache—in a word, complete defervescence, and it seldom happens that a second bottle is required. If so, the dose must be repeated as above. In very adynamic cases, if the sweating threatens to prove exhausting, nourishment in the shape of beef-tea, with the addition of Liebig's extract and some wine or brandy of good quality, may be required.

In the terrible remittent fevers described by Livingstone and his followers, the form of purgative prescribed by the great traveller, and known to his people as "Livingstone's Rousers," may be premised. By no authors is the necessity for careful nutrition and due stimulation so much insisted on as by the companions of this immortal explorer, notably by the Rev. Mr. Waller, who, I believe, is a physician as well as a missionary.

DR. WARBURG'S TINCTURE.

℞ Aloes (socotr.) libram,
Rad. Rhei (East India),
Sem. Angelicæ,
*Confect. Damocratis, ana uncias quatuor;
Rad. Helenis (s. Enulæ),
Croci sativi,
Sem. Fœniculi,
†Cret. præparat., ana unc. duas;
Rad. Gentianæ,
Rad. Zedoariæ,
Pip. Cubeb.,
Myrrh. elect.,
Camphoræ,
‡Boleti laricis, ana unciam.

The above ingredients to be digested with 500 ounces of proof spirit in a water-bath for 12 hours; then expressed and ten ounces of disulphate of quinine added; the mixture to be replaced in the water-bath till all quinine is dissolved. The liquor, when cool, is to be filtered, and is then fit for use.

Your obedient servant,

Netley, Nov. 1875. W. C. MACLEAN.

THE MEDICAL SOCIETY OF LONDON.

To the Editor of THE LANCET.

SIR,—At a meeting of the Council of this Society held yesterday, attention was directed to an article on the Metropolitan Medical Societies, which appeared in THE LANCET, October 9th, in which, after awarding its due meed of praise to the work done by this Society, you remark, "It is much to be regretted that no Transactions of this Society have yet been published." I am requested by the Council to state that a volume of Proceedings was issued to the Fellows in October, 1874, and that a second volume edited by the Secretaries is now in the press and will shortly be in circulation.

I have the honour to remain, Sir, your obedient servant,

C. THEODORE WILLIAMS, M.D.,

Nov. 6th, 1875. Honorary Secretary.

SMALL-POX IN SAXONY.

To the Editor of THE LANCET.

SIR,—In No. 17 of Volume II. of your valuable paper of this year, it is said (p. 610), in the article Small-pox: "No official accounts of Saxony are forthcoming." I am glad to give you the desired account. As to the year 1871, the official information on the total small-pox deaths is not quite certain; but I believe that there may have been at least 9000; in the year 1872 there were 5863; in 1873, 1772. In these last two years 30 per cent. of the deaths were in children under the age of one year.

The number of the population of Saxony was on the 1st December, 1871, 2,556,244. The small-pox death-rate per 1000 of population was therefore: 1871, 3·5; 1872, 2·2; 1873, 0·7. I am, Sir, yours faithfully,

R. GUENTHER, M.D.,
Medical Officer of the Privy Council.

Dresden, 5th November, 1875.

* This confection, which consists of an immense variety of aromatic substances, was once officinal, and is to be found in the Ph. Lond., 1746.

† Dr. Warburg informs me that this ingredient was added to correct the otherwise extremely acrid taste of the tincture. Many other substances were tried, but none answered so well as prepared chalk.

‡ This is the Polyporus laricis (P. officinalis, Boletus purgans, or Larch agaric), "formerly," says Pereira, "used as a drastic purgative, and still kept by the herbalist."

GLASGOW.

(From our own Correspondent.)

THE various medical classes in connexion with Glasgow are now in full working order. The opening address to the students at the University was delivered by Dr. George Buchanan, the Professor of Clinical Surgery, and was fairly received by a noisily appreciative audience of the young alumni. On the following day the Dean of the Medical Faculty, Dr. Alexander Lindsay, gave the inaugural discourse at the Andersonian University. The well-known ability and experience of the lecturer secured him a large audience. Instead of choosing any stereotype subject, Dr. Lindsay spoke of some of those conditions that rule in the world of matter, selecting more particularly the laws of diversity, unity, and economy, and illustrated and dwelt on the divisions under these heads. His address was well received, and was delivered without the aid of note or manuscript. In addition to the two schools mentioned, we have the nucleus of an extramural school, and lectures on surgery and medical jurisprudence are being delivered. The University authorities have resolved to recognise these lectures as qualifying for graduation. This is as it should be, but the same privilege should be extended to the lectures at the Andersonian. The majority of the medical profession in the University were at one time lecturers at the Andersonian before their advancement to their present chairs, and, when acting as such, vigorously and justly clamoured against a monopoly of teaching. On their promotion they appear, however, to forget their former views, and abandon a liberal policy. The ostensible cause given for the non-recognition of the teachers is the fact that, according to the conditions of the founder of the school, those elected to the various chairs should be called professors of the subjects they expounded. They thus, it is said, become rivals, not merely in teaching, but in the actual possession of a title. I venture to think that such reasoning is unworthy of any university, and trust a more generous one may be adopted. The recognition of extramural lectures has enhanced greatly the reputation of Edinburgh as a medical school, and the same mode of procedure to all here it is presumable would promote in every way the true interests of medical science.

Favoured by excellent weather, Dr. Russell has for the last three weeks been able to report a wonderfully healthy condition of affairs, the mortality tables indicating an average of only 21 per 1000, against 31 of the same month of last year.

There has been since the commencement of August last a somewhat bitter feeling between the directors of the Royal Infirmary and the Police Board, which culminated in a meeting between the different representatives on 3rd Nov. Full details are given in the daily papers, and will doubtless give rise to much discussion. Briefly stated, the matter under dispute was this. In the suburban burghs enteric fever had been prevalent for some time, and Dr. Russell was anxious to obtain information as to the locality of such cases which had been removed to the Royal Infirmary, and with the ostensible object also of having such cases sent to the Fever Hospital at Belvidere, which is under the control of the municipal authorities of Glasgow. The infirmary directors declined to accede to this request, and a somewhat personal and hasty correspondence in the daily papers took place between the superintendent of the infirmary and Dr. Russell. The conclusion come to at the meeting will be seen from the following summary from one of our daily papers:—

"A conference took place yesterday between the managers of Glasgow Infirmary and the Health Committee of the Police Board, with the view of arrangements being made for

information being given to the Sanitary Department of all fever cases sent to the infirmary. Mr. William MacEwan, on behalf of the managers, read a statement in reply to the minute adopted by a recent meeting of the Police Board, in which he denied that the managers of the infirmary had in any way aided the authorities in neighbouring burghs to evade their responsibility. He also explained that, in virtue of payments made some time ago, and of annual contributions, certain parties had a right to send their patients to the infirmary. He also emphatically denied the allegation that sewage was sent from the infirmary into the sewers to the detriment of the public health. The Heath Committee, on their part, disclaimed all intention of injuring the infirmary, but argued that it was necessary, to enable them to protect the health of the city, they should be made aware of all cases of epidemic disease within their bounds, and of all cases imported from neighbouring districts. The directors consented to give returns of all fever cases sent into the infirmary from the city, but declined to be made middlemen between the Health Committee and the suburban burghs."

It is understood that the infirmary directors at their last quarterly meeting resolved to increase the salaries of each of the medical officers by an addition of £50 for the ensuing year.

Glasgow, November 8th, 1875.

IRELAND.

(From our own Correspondent.)

MEDICAL and other scientific meetings and lectures have once again become the order of the day. Freshmen from the country are visible in the Irish metropolis intent on study or the appearance of it, or on the pleasures associated with the return of citizens and sojourners to Dublin. Opening addresses have for several days been the rage in the medical schools and hospitals, many of these orations presenting features of interest to the general as well as to the medical hearers. One delivered at the Meath Hospital, by Dr. Stokes's comparatively young successor, has been accorded a very considerable meed of praise. Dr. John Wm. Moore promises to fill worthily the place vacated by the celebrated Stokes. On Wednesday next, at the College of Physicians, it is proposed to hold the opening meeting of the Medical Society of that body. To-night the veteran Dr. Stokes opens the session of the Royal Irish Academy.

Death has, as your columns have already announced, removed another leading member of the medical profession. John Hamilton has passed from amongst us. His illness and death have not been quite correctly described, as I am informed; but a statement will, I am told, shortly be given as to the exact nature of the disease which proved fatal to him, and, awaiting this, I abstain from further comment. Very many patients lose a valued professional adviser by Mr. Hamilton's decease.

Dublin, Nov. 8th, 1875.

Obituary.

GEORGE ROSS, M.D.

WE have to record the death of Dr. George Ross, which took place at his residence, 11, Hart-street, Bloomsbury, after a short illness, in the fifty-eighth year of his age. The deceased was the eldest son of George Ross, Esq., of Stoke, and grandson of George Ross, of Dalkeith, a lineal descendant of the ancient branch of the family of Ross. He evidenced at an early age an active and inquiring mind, and as a boy commenced to give literary form to his ideas. The taste grew with his years, and in manhood shaped the course of his life. He entered the medical profession as pupil to Mr. Phillips, of Albion-street, Hyde-park, and received his professional education at St. George's Hospital. Literature was his dream from boyhood. His first published efforts appeared in the pages of the *Old Monthly*, to which he became a frequent contributor. Some of his published poems are of a very high order. He resolved, however, at last to give himself wholly to his legitimate profession. In 1852 the late Mr. Yearsley proposed to Dr. Ross to start in conformity with him a new journal, and soon after the *Medical Circular* appeared, Dr. Ross undertaking the duties of editor.

In 1854 Dr. Ross was elected by the constituents of the ward of Farringdon Without their representative in the Corporation of the City of London. In 1869, when the office of medical officer of health for St. Giles's and Bloomsbury was vacant, almost at the last moment Dr. Ross was urged to come forward. He did so, and was appointed. This office he held until his death; and the regard in which his services were held is best testified by the resolution which was passed at the meeting of the vestry following his decease. Dr. Ross was a graduate of the University of St. Andrews, M.D., L.R.C.P. Edin., M.R.C.S. Eng., &c. He was a member of the Charity Organisation Society, and of the Commission of Sewers; Vice-President of the Society of Medical Officers of Health; and a member of the Civil Engineering Committee and the Sanitary Sub-committee of the International Exhibition, 1874.

WILLIAM RICHARDSON, M.D.

WE have to record the death at Kilburn, on the 18th of September, of Dr. William Richardson, author of "Remarks upon Diabetes, especially in reference to Treatment." He was born at Perth, July 26th, 1811, and was descended from an old Scotch family. At the age of 18 he graduated M.A. at the University of Aberdeen. Shortly afterwards he came to London, and was admitted a member of the College of Surgeons. In 1850 he graduated M.D. at St. Andrews with great distinction, after which he became M.R.C.P., receiving the highest encomiums from his examiners. In 1853 he went to Tunbridge Wells, and without any introduction speedily became the leading physician of the place. In 1860 he was attacked by diabetes in its worst form; by his own treatment and the use of means pointed out in his treatise he was able to enjoy life and continue his practice until 1868, from which period he lived comparatively in retirement. Having lived the life of a sincere Christian, his end was illumined by a sure hope of better things to come. He leaves a large circle of relatives and friends who deeply mourn his loss.

GEORGE ALLARTON, M.R.C.S. ENG., L.S.A.

MR. GEORGE ALLARTON died at his residence, South-street, Southmolton (where he had been medical practitioner for over 17 years), on Friday, October 29th, aged 62 years, and his remains were interred in the cemetery there on November 4th. He was in medical practice in West Bromwich for more than twenty years, and was deputy coroner for South Staffordshire. He was also the author of the following works—viz., "Lithotomy Simplified," "An Interesting and Unique Case of Cæsarean Section," and a "Treatise on Median Lithotomy." Mr. Allarton was a man of great learning and ability.

THE ROYAL COLLEGE OF SURGEONS.

AT an ordinary meeting of the Council of the Royal College of Surgeons held on Thursday last, Mr. Marshall introduced an elaborate scheme proposing that all intending candidates for the diploma of Member or Fellow of the College should be compelled to pass a compulsory and authoritative elementary examination at the end of the first winter, or immediately after the commencement of the succeeding summer session. Mr. Marshall has been led to make this suggestion by the large number of rejections at the Primary Examinations at the College and the unsatisfactory kind of knowledge possessed by many candidates who do pass. If there were a compulsory examination in Anatomy and Physiology at the end of the first year, Mr. Marshall thinks that many students who now squander away their time would be induced to apply themselves to work, and by that means be diverted from an idle and profitless course of life, and made useful members of the profession. Although the scheme was on the whole kindly received by the Council, many objections were suggested, and the question was finally referred to a committee for consideration.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed the Primary Examination in Anatomy and Physiology at a meeting of the Court of Examiners on Tuesday last:—

C. Knox and T. H. Lewis, Liverpool; J. R. Clark, G. H. Burnham, C. M'Larty, T. Millman, and M. D. Stark, Toronto; H. B. P. Barry, London Hospital; A. T. Wilkinson, Manchester; John Christian, W. K. Davies, J. H. Marsh, S. T. Proctor, and E. P. Thurstan, St. Thomas's Hospital; W. A. Dingle, W. F. Mayne, and W. H. T. Winter, St. Bartholomew's Hospital; C. S. Rundle and C. S. Kilner, Edinburgh; H. W. Thomas, Birmingham; E. C. Beale, Cambridge; G. A. Walker, Edinburgh and Aberdeen; W. D. Jefferson, King's College; W. F. Horwood and H. A. Layton, University College; J. C. Saunders, Cambridge and St. Bartholomew's Hospital; T. Jones, C. G. W. Lowdell, and J. H. Poland, Guy's Hospital.

Of the 41 candidates examined, 12 failed to satisfy the Court of Examiners, and were referred for three months' further anatomical and physiological study.

UNIVERSITY OF LONDON.—The following is a list of the candidates who have passed the recent 2nd M.B. examination:—

FIRST DIVISION.

Batterbury, George Henry, King's College.
Batterbury, Richard Legg, King's College.
Garlick, George, University College.
Hetley, Henry, Guy's Hospital.
Hobson, Lewis John, University College.
Hullard, Jean Arthur, B.Sc., University College.
Jameson, Leander Starr, University College.
May, Bennett, Birmingham General Hosp. and Sydenham Coll.
Rose, William, King's College.
Smith, Herbert Alder, St. Bartholomew's Hospital.
Verco, Joseph Cooke, St. Bartholomew's Hospital.
Voelcker, George Henry, University College.

SECOND DIVISION.

Bogg, Thomas Wemyss, University College.
Buchanan, Arthur, Guy's Hospital.
Crespin, Edgar Reginald Legassicke, Guy's Hospital.
Crétin, Eugène, St. Bartholomew's Hospital.
Maclean, Thomas Edwin, University College.
Moore, George Edward, King's College.
Palmer, Frederick John Morton, Guy's Hospital.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine and received certificates to practise on Nov. 4th:—

Betty, Samuel George, Park-street, Regent's-park.
Heard, Charles Goodridge, Truro, Cornwall.
Jackson, Edwin, Whalley Range, Manchester.
Kay, Alfred, Commercial-road East.
Knight, John Tomlinson, Sandiacre, Derbyshire.
Marsh, Edwin Addison, Arthur-road, Brixton.
Parkinson, Sidney George, Infirmary, Northampton.

DR. ATTHILL, vice-president of the College of Physicians, was last week elected master of the Rotundo Lying-in Hospital, Dublin.

Benjamin Barkus, M.D., and Robert J. Banning, M.D., have qualified as Justices of the Peace for the borough of Gateshead-on-Tyne.

STATISTICAL SOCIETY.—The first ordinary meeting of the present session will be held on Tuesday, the 16th inst., at the Society's Rooms, Somerset House-terrace, Strand, when the President, James Heywood, Esq., M.A., F.R.S., will deliver his inaugural address, and present the Howard Medal to the successful candidate, this being the first award. Mr. E. G. Ravenstein, F.R.G.S., will give "Statistics collected at the Geographical Congress in Paris"; and Dr. W. A. Guy, F.R.S., will read a paper on "John Howard's true place in History." The chair will be taken at 7.45 P.M.

PRESENTATIONS.—Mr. James Middleton has been presented with a large silver tray bearing the following inscription:—"To James Middleton, Esq., M.R.C.P., M.R.C.S., from a few friends on his retiring from the office of physician to the City Dispensary, in token of their high esteem, and as an acknowledgment of his unwearied services during a period of thirty years." The presentation was made by the Lord Mayor at a meeting of the governors of the dispensary at the Mansion House on Wednesday, the 3rd inst.—Mr. W. J. Fleetwood, who has been connected with the Chester General Infirmary for four years, at first as visiting, and afterwards as house surgeon, was presented, on his resignation on October 14th, with a handsome case of operating instruments by the visiting surgeon, matron, dispenser, nurses, and servants of the institution.

GRANGE-OVER-SANDS.—Scarlet fever has been again prevalent in this place of resort, and in all the surrounding villages for many weeks past. It will hardly be credited that although the village boasts of a local board, which has been in existence for above twelve months, not a single effort has been made to improve the drainage, which for years has been notoriously defective.

Medical Appointments.

BOND, J., L.R.C.P.Ed., L.M., L.R.C.S.I., has been appointed Assistant Medical Officer to the Haydock Lodge Lunatic Asylum, Newton-le-Willows, vice Johnstone, resigned.

BOOTH, L., M.D., M.R.C.S.E., has been appointed Medical Officer of Health for the Accrington Urban Sanitary District, vice Gillespie, deceased.

BRIGGS, H. B., M.R.C.S.E., has been appointed Resident Accoucheur at King's College Hospital.

BROOM, J., L.K.Q.C.P.I., L.R.C.S.Ed., L.M., M.R.C.S.E., has been appointed Consulting Physician to the British Alliance Assurance Corporation (Limited).

CAPE, J. T., M.R.C.S.E., has been appointed Medical Officer of Health for the Totnes Rural Sanitary District, vice the District Medical Officers, until Christmas, 1876: £100 per annum.

CLAY, R. H., M.D., has been appointed Medical Visitor of Plympton House Lunatic Asylum, Plympton, Devon.

CROSSLE, F. C., M.B., C.M., has been appointed Medical Officer, Public Vaccinator, and Registrar of Births &c., for the Newry No. 2 Dispensary District of the Newry Union, vice Anderson, resigned.

CROWDACH, J. H., L.S.A., has been appointed Assistant Medical Officer to the East Riding of Yorkshire Lunatic Asylum, Beverley.

DAY, E. J., M.R.C.S.E., has been appointed House-Surgeon to the Dorset County Hospital, Dorchester, vice Hearn, resigned.

DEANS, J., M.R.C.S.E., has been reappointed Medical Officer for the Coldridge District of the Crediton Union, Devon.

FISHER, Dr. T. C., has been appointed House-Surgeon and Apothecary to the Essex and Colchester Hospital, vice Boodle, resigned.

FOOTNER, J. B., M.R.C.S.E., has been appointed a House-Surgeon to King's College Hospital.

FOWLER, J. K., M.R.C.S.E., late House-Surgeon, has been appointed an Assistant House-Physician to King's College Hospital.

GODSON, C., M.D., M.R.C.P.I., has been appointed a Physician-Accoucheur to the St. George Provident Dispensary, Mount-street, vice Carter, resigned.

GOULD, A. P., M.B., B.Sc., has been appointed Surgical Registrar at University College Hospital, vice Godlee, resigned.

GRAHAM, A., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Surgeon to Court Robin Hood A. O. F., Park-gate, Rotherham.

GREALY, N., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Apothecary to the Galway Dispensary and Union Workhouse, vice O'Sullivan, deceased.

GROUND, E., M.R.C.S.E., has been appointed an Assistant House-Surgeon to King's College Hospital.

HARNOLL, H. T., M.R.C.S.E., has been appointed Medical Visitor of Court Hall Lunatic Asylum, Kenton, Devon.

HEBB, R. G., B.A., M.B., M.R.C.S.E., has been appointed a House Physician to King's College Hospital.

LILLEY, G. H., L.R.C.P., M.R.C.S.E., L.M., has been appointed House-Surgeon to the Coventry and Warwickshire Hospital, vice Eagar, resigned.

MACDONALD, A., M.D., has been appointed a Physician to the Royal Hospital for Sick Children, Edinburgh.

MAYBURY, W. A., M.D., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the 2nd Ward District of the Colchester Union, vice Brown, resigned.

NETTLESHIP, E., F.R.C.S.E., has been appointed an Assistant-Surgeon to the Hospital for Diseases of the Skin, Stamford-street, vice Sims, resigned.

PEERS, C., L.R.C.P.L., M.R.C.S.E., has been appointed Medical Officer of Health for the Burton-on-Trent Urban Sanitary District, vice Belcher, resigned.

RAVENHILL, T. H., M.R.C.S.E., has been appointed an Hon. Medical Officer to the Birmingham Lying-in-Charity, vice Warden, resigned.

RAYNE, C. A., M.B., has been appointed Assistant-Physician to the Manchester General Hospital and Dispensary for Sick Children, vice Harris, deceased.

REDWOOD, T. H., M.D., L.R.C.P.L., M.R.C.S.E., has been reappointed Medical Officer of Health for the Rhymney Urban Sanitary District.

ROBBS, C. H. D., M.D., M.R.C.S.E., has been appointed Medical Officer for the Spittlegate District and the Workhouse of the Grantham Union, vice W. Robbs, M.D., M.R.C.S.E., deceased.

SPARROW, G. G., M.R.C.S.E., L.R.C.P.Ed., L.M., has been appointed House-Surgeon and Secretary to the Royal Isle of Wight Infirmary, Ryde, vice Pletts, resigned.

TINDLE, J. G., M.R.C.S.E., has been appointed House-Surgeon and Dispenser to the North Shields and Tynemouth Dispensary, vice Bennett, deceased.

TWINING, A. H., L.S.A.L., has been appointed a Junior Resident Medical Officer to the Royal Free Hospital, vice Pink, resigned.

WARD, W. A., M.R.C.S.E., L.M., has been appointed House-Surgeon to the Infirmary, Richmond, Surrey.

WARNER, F., M.D., F.R.C.S.E., has been appointed an Extra Acting Physician to the Birmingham and Midland Free Hospital for Sick Children, vice Welch, resigned.

WARDROP, D., M.B., C.M., has been appointed Junior House-Surgeon to the Birkenhead Borough Hospital, vice Murray, appointed House-Surgeon to the Southport Infirmary.

WATSON, A. M., M.D., M.R.C.S.E., has been appointed Certifying Factory Surgeon for Penistone, Yorkshire, vice Ward, deceased.

WELCH, J. B., M.B., M.R.C.S.E., has been appointed an Acting Physician to the Birmingham and Midland Free Hospital for Sick Children, vice Mackey, resigned.

YOUNG, C., M.D., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Yarm District of the Stokesley Union, Yorkshire.

Births, Marriages, and Deaths.

BIRTHS.

BRODRIBB.—On the 5th inst., at Watford, the wife of Charles A. Brodribb, M.R.C.S.E., of a son.

DAVSON.—On the 1st inst., at Campden Villa, Maida-vale, the wife of S. H. Davson, M.D., of a son.

HATHERLY.—On the 2nd inst., at Wellington-street, Park-side, Nottingham, the wife of H. R. Hatherly, L.R.C.P.Ed., of a son.

KEITH.—On the 13th of Sept., at Nuwara Eliya, Ceylon, the wife of William Gregory Keith, M.B., C.M., L.R.C.P.Ed., L.R.C.S.Ed., Assistant Colonial Surgeon, of a daughter.

MACKINNON.—On the 1st inst., at Aldershot, the wife of Surgeon-Major C. Mackinnon, Army Medical Department, of a son.

MIDDLETON.—On the 7th inst., at Manorhead, Stow, N.B., the wife of Dr. James Middleton, of a daughter.

NEWBERRY.—On the 8th inst., at Burgess Hall, Leeds, Kent, the wife of W. J. Newberry, M.R.C.S.E., L.S.A.L., of a daughter.

SAUNDERS.—On the 6th inst., at Lower Seymour-street, Portman-square, the wife of C. E. Saunders, M.D., of a son.

STILWELL.—On the 4th inst., at Beckenham, the wife of R. R. Stilwell, M.D., of a son.

MARRIAGES.

JAMISON—GREEN.—On the 4th inst., at the Parish Church, Weybridge, Arthur J. Jamison, M.D., to Isabella, daughter of the late Rev. H. Green.

LUCE—RYAN.—On the 4th inst., at Winchester Cathedral, James Johnstone Luce, M.D., of Stratford-on-Avon, to Mary, widow of the Rev. John Ryan, Curate of Holy Trinity Church, Southampton, eldest daughter of the late Wm. Barry, Esq., of Kilbarry, Co. Cork, and grandniece of the late Matthew De Rinzy, Esq., D.L., of Clobemon Hall, Co. Wexford, Ireland.

SHORTT—ROGERS.—On the 9th of Sept. (by special licence), at St. John's Church, Bangalore, John Shortt, M.D., M.R.C.P.L., F.L.S., &c., Surgeon-Major and Inspector of Vaccination, Madras Presidency, to Annie Julia Henrietta, eldest daughter of Surgeon-Major C. J. Rogers, Zillah Surgeon, of Coimbatore.

DEATHS.

ANDERSON.—On the 31st ult., at Ajaccio, Corsica, James R. Anderson, L.R.C.S.Ed., retired Staff-Surgeon R.N., aged 40.

BEADLES.—On the 4th inst., at Park House, Forest-hill, John N. Beadles, M.R.C.S.E., late of Broadway, Worcestershire, aged 73.

CHARTRES.—On the 31st ult., at Clifton House, Hampstead, J. S. Chartres, M.D., Surgeon-Major Army, aged 47.

DAVIS.—On the 2nd inst., at Linden House, Winkleigh, Devon, Wm. H. Davis, M.R.C.S.E., aged 44.

HAMMOND.—On the 3rd inst., at Market-street, Cambridge, J. Hammond, F.R.C.S.E., aged 72.

LLOYD.—On the 2nd inst., David Lloyd, M.R.C.S.E., of Carmarthen.

M'GILLIVRAY.—On the 25th ult., at Kilmore, Co. Argyll, Geo. M'Gillivray, M.D., aged 49.

PASSMORE.—On the 4th inst., at Brighton, John Geo. Passmore, M.R.C.S.E., aged 59.

PULLAN.—On the 2nd inst., at Epworth, Lincolnshire, Richard Pullan, M.R.C.S.E., formerly Assistant-Surgeon R.N., aged 82.

SARVIS.—On the 4th inst., Thomas Sarvis, M.D., of Bethnal-green-road, Medical Officer of Health for Bethnal-green, aged 54.

SIMPSON.—On the 3rd inst., at Priestley-road, Warwick, John H. Simpson, Surgeon, aged 68.

SPENCER.—On the 1st inst., at Stoke Newington, John Spencer, M.R.C.S.E., aged 61.

STRADLING.—On the 5th ult., at Glastonbury, F. R. Stradling, Surgeon, aged 56.

TAIT.—On the 22nd ult., at Dunse, John Tait, L.R.C.S.Ed., aged 56.

[N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*]

Notes, Short Comments, and Answers to Correspondents.

THE SKIPTON GUARDIANS.

THE proverbial and often false economy of so-called guardians of the poor is exemplified in the recent action of the Skipton Board towards their medical officer, who, after holding his appointment for a year, has applied for an advance of salary, basing his claims thus—1st, the salary has been the same for the past twenty-five or thirty years; 2nd, an Infirmary for Contagious and Infectious Diseases for the whole union has been added to the workhouse without any additional salary; and 3rd, the number of inmates in the workhouse has been nearly trebled. To the intelligent minority of the guardians their medical officer's claim seemed most reasonable; but on a vote it was decided to give no advance. The workhouse doctor consequently resigned, and as his professional brethren in the town are sensible of the justice of his claim, they all refuse to apply for the post. In this dilemma the guardians are advertising the appointment, and it now remains to be seen whether anyone, or who, will assist the guardians in frustrating the apparently just claims of their medical officer. Considering that there is not a breath of complaint against his professional skill or attention to the sick poor, we hardly think any medical man would be justified in offering himself to fill the vacancy.

Mr. G. D. O. Thomas.—Declined with thanks.

MEDICAL OFFICERS OF HEALTH: THEIR DUTIES AND THEIR RELATIONS TO PRIVATE PRACTITIONERS.

B. U. R. asks a series of questions, which we proceed to answer *seriatim*:—

1. "Is it the duty of a medical officer of health to see those who are sick?" By the regulations of the Local Government Board, a medical officer of health is required to "inquire into and ascertain by such means as are at his disposal the causes, origin, and distribution of diseases within his district"; also, on receiving information of the outbreak of any contagious, infectious, or epidemic disease of a dangerous character within his district, "to visit the spot without delay, and inquire into the causes and circumstances of such outbreak, and advise the persons competent to act as to the measures which may appear to him to be required to prevent the extension of the disease, and, so far as he may be carefully authorised, assist in the execution of the same." These duties can only be carried out with a definite knowledge of the nature of the disease, and it is left to the judgment of the medical officer how to obtain this. He has no right of entry to the sick without the consent of the sick persons themselves or those in charge, and he is not exempted by the above requirements from the customary professional courtesies, unless, indeed, the medical attendant should refuse to aid or co-operate with him.—2. "Is it his duty to see them two or more times?" Such a duty might arise under certain difficulties of diagnosis, or of applying necessary means of preventing the spread of the disease; but clearly it is one that, where there is an ordinary medical attendant, must be strictly carried out in co-operation with him, unless, indeed, the latter refuse to co-operate.—3. "Is it his duty to make suggestions as to treatment in the medical attendant's absence, and without his consent?" Unquestionably not. This would be equally a breach of professional etiquette and of his proper duties. These are limited to measures of prevention, and here circumstances may arise in which it may be his duty to make suggestions; but always subject to the consideration that he has no right of interference with the medical attendant in charge, unless with the assent of the latter, or that he is satisfied that measures necessary for the safety of the community are being neglected.—4. "Is it his duty to enter and examine a house in which there is no illness, and that is not suspected of being in an insanitary condition?" It may be a duty for him to satisfy himself that a house is free from sickness or insanitary states during inquiries into the distribution, causes, or prevalence of disease.—5. "Supposing him to condemn some cesspool or drainage arrangement, is it his duty to say what must be done, or leave it to be done by the occupier, on the chance of his approving or not, as the case may be, when it is finished?" It is no part of his duty to say what *must* be done, unless some bye-law of his authority exist touching the matter which empowers him to be imperative; but he has a duty of seeking by reasonable advice and suggestion to prevent what is to be done being wrongly executed.

"NOBLESSE OBLIGE."

To the Editor of THE LANCET.

SIR,—The attention of the Committee of this hospital has been called to a letter in last Saturday's LANCET, written by Mr. R. J. Metcalfe, of Beccles. I am requested by them, as their honorary secretary, to write to you on the subject of that letter. These are two, and they should be kept distinct from each other.

1. Mr. M.'s own treatment by "the authorities of the North Cambs Hospital"; and

2. The propriety of a certain regulation in this hospital.

1. On the first subject Mr. M. complains of discourtesy on the part of our chairman and our resident surgeon. The former, the Rev. Canon Scott, Vicar of Wisbeach, is as far removed from discourtesy or any sort of unkindness as black is from white. The latter gentleman is also utterly incapable of any such conduct as is imputed to him. We ourselves, as a Committee, and all others who have personal knowledge of these two gentlemen, are quite convinced of the impropriety of any such charge of discourtesy. Your correspondent's feelings seem to have been overwrought by the painful circumstances in which he was placed in consequence of his father's sad illness. We have been told that to have extemporised a millboard splint would have taken him but a short time, far less than the hours occupied in journeying to and from Wisbeach on the occasion.

2. As to the rule itself, it has been made the subject of long and anxious consideration and discussion. Under the peculiar circumstances of this hospital, the Committee—who have met this day, thirteen in number—have again, after reading your correspondent's letter, decided to let the rule remain as it is. It is quite inaccurate, however, to describe as the effect of the rule "that no instrument or appliance was allowed to be taken out of the hospital." The rule or minute is as follows. It was passed in this form on January 27th, 1874:—"That no furniture, surgical instruments and appliances, or property of any description belonging to the hospital, be removed from the premises for any purpose whatever without the special permission of the Committee, or, in case of emergency, of one of the trustees, and with the concurrence of the house-surgeon and one of the other medical officers."

Expressing our regret that Mr. Metcalfe should have mixed up mere personalities and imaginary grievances with the subject for public consideration, and that THE LANCET should have been made the vehicle of such irrelevant matter, I am, Sir, on behalf of the N.C.C.H. Committee,

Your obedient servant,

ALFRED J. PERRY, Hon. Sec.,
Vicar of St. Augustine's, Wisbeach.

North Cambs Cottage Hospital, Wisbeach, Nov. 2nd, 1875.

*** We regret that the Committee should have confirmed a rule which has operated so harshly. We are sure that the subscribers of a hospital would regret that a splint had been refused to a surgeon with a broken arm under the circumstances of this case. It would be quite enough, to protect the surgical apparatus of a hospital, to require the house-surgeon to be responsible, and to enter any loan of it in a special book.—ED. L.

CONSTANT WATER-SUPPLY.

IT is gratifying to perceive even faint indications of the eventual satisfaction in London of what we have repeatedly urged as one of the prime necessities of urban populations—a constant water-supply. The East London Waterworks Company have given notice of their intention to apply the constant service, from the 1st of March to 1st of April, 1876, to certain areas in the parishes of St. John (Hackney), St. Matthew (Bethnal-green), and St. Leonard (Shoreditch). The Kent Waterworks Company have also signified their intention to give a constant supply of water to certain portions of the parish of Woolwich. We have advocated the constant service system solely in the health interests of the community; but there appear to be some people so sanguine in respect of its potent results as to predict that its adoption would have the effect of closing half the Fire Insurance Offices, and of reducing the Fire Brigade establishment to one-half its present proportions.

L.R.C.P. Lond.—Every information respecting it may be obtained by making application to Dr. Paget, Cambridge University.

THE FLEXIBLE STETHOSCOPE.

To the Editor of THE LANCET.

SIR,—In reference to the flexible stethoscope recently introduced by Drs. Reid and Morison, I may state that I have been in the habit of occasionally using one identical in principle for three or four years. The idea was "suggested" to me by observing a broken stethoscope on the mantelpiece. I cut off the chest-piece with about two inches of the stem, and then cut away the ear-piece until, by cutting and sand-papering the remainder, it exactly fitted my meatus, leaving also about two inches of the shaft attached. Upon uniting the chest- and ear-pieces with about two feet of common elastic tubing, I obtained a flexible stethoscope which exactly fitted my meatus, and which was quite equal in acoustic properties to any other that I ever saw. Subsequently, being annoyed a little by the concussion caused by the application of the chest-piece, and also to lessen the roaring, I bored a small oblique hole in the ear-piece.

If any medical man likes to follow out these directions, I guarantee him a flexible stethoscope in every respect (except in appearance) equal to any that he can buy, and which will have the great advantage of exactly fitting his ear.

Another recommendation of this stethoscope is that the wood is warmer to the ear, and not so apt to set up irritation or give cold. I have found it of some use in auscultating babies, the backs of fever patients, hysterical females who cannot bear the pressure of the ordinary stethoscope, and the uterus per vaginam, to ascertain the seat of the placental attachment. For this last purpose it is very well adapted; but it is better, for obvious reasons, to tie tightly a piece of gutta-percha tissue over the chest-piece before using it.

And now I have said all I can in its favour. It has all the usual faults which I have before found in flexible, air-conducting stethoscopes—viz., confusion of sounds from too great reverberation, and adventitious sounds arising from the friction of the hand holding the chest-piece with it. The latter can, with practice, be instantly distinguished from chest-sounds; but the first leads to that greatest of all faults of a stethoscope, indistinctness of definition, and, being obviated by nothing that I know of, is so great an objection as to be fatal to the use of the flexible stethoscope under any circumstance in which the ordinary stethoscope can be used with any approach to comfort.

The flexible stethoscope conducts plenty of sound, in fact more than the ordinary stethoscope considerably; but it is the same with it as with the microscope, in which, as every practical worker knows, low power and good definition is greatly to be preferred to high power and bad.

Yours obediently,

Blackpool, Nov. 8th, 1875. WM. HARDMAN.

To the Editor of THE LANCET.

SIR,—In your last two impressions letters have appeared from Drs. Hutchinson and Balbirnie with reference to the flexible stethoscope. The former ascribes to Dr. Sibson, and the latter to Dr. Golding Bird, the use of such an instrument. The instruments known as having been used by these gentlemen in no way resemble that advertised by Messrs. Arnold and Sons, except in that they are flexible. Both *were* constructed much shorter, and both *had* flat ear-pieces. When Dr. Reid and I gave a plan of the instrument in question to the makers, these were the only flexible stethoscopes of which we were cognisant. Many besides Drs. Hutchinson and Balbirnie may have used instruments either *exactly* similar, or bearing a more or less general resemblance to that noticed in your journal; but such not having, so far as we know, been published, we were perhaps not unnaturally ignorant of their existence. While recognising with your correspondents the advantages of the instrument, our experience of its use has caused us to attach such importance to the construction of the ear-peg as to consider it a distinctive feature. Let us hope that this form of stethoscope, having now been brought into more general notice, may retain its place, and that others may in practice corroborate the encomiums bestowed upon it by your correspondents. I am, Sir, yours obediently,

Canonbury, N., Nov. 9th, 1875. ALEXANDER MORISON, M.B.

Mr. John Snell, (Bacup.)—Several cases of the kind have been published in THE LANCET from time to time: e. g., in the number for Jan. 25th, 1873, the case of Hadaway *v.* Bournstone, at the Bloomsbury County Court; another in that of March 6th, 1875, page 360—a case at the Marylebone County Court, in which Mr. Serjeant Wheeler gave judgment for the plaintiff.

WARM SWIMMING BATHS.

To the Editor of THE LANCET.

SIR,—In your issue of the 6th inst., Bath is spoken of as possessing the only warm swimming bath. I have frequently bathed at Brighton in Brill's Circular Swimming Bath, the water of which is kept always at the summer temperature of the ocean. In winter it may be legitimately termed a warm or tepid bath, and must be superior to Bath in being *sea* water.

Yours faithfully,

November 10th, 1875. GEO. DELVES.

CASE OF TRAUMATIC GANGRENE OF RIGHT ARM; AMPUTATION AT THE SHOULDER-JOINT; RECOVERY.

To the Editor of THE LANCET.

SIR,—The following case is, I think, sufficiently interesting to have a place in your columns.

George B——, an agricultural labourer, of the parish of Down Ampney, Wilts, a fine muscular man, aged thirty, nearly six feet high, and twelve stone in weight, was engaged on Aug. 28th, 1875, in a large barn, in which machinery worked by steam power was in motion, when, somewhat out of bravado, he volunteered to put the strap on the wheel, which was twelve feet from the floor, connected with the chaff-cutting machine, and to do so he had to ascend a ladder that was resting against a beam of the roof which spanned the building, and being anything but an adept at the work, he leaned so far over the driving shaft, which crossed the said beam at right angles, that the left skirt of his jacket, or, to use his own phraseology, his slop, was caught by a projecting nut, so that he was very quickly wound up, and after revolving several times until the whole of his clothes were literally torn to rags, he was thrown diagonally across the barn on to a heap of straw which had been providentially placed there.

The man, though conscious, feeling very faint and exhausted, stimulants were administered to him, and in the meantime Mr. Langley, surgeon, of Cricklade, was sent for. He had the patient removed at once to his own home, which was about a quarter of a mile from the scene of the accident, and on examination found fracture of the left humerus, and some loss of sensibility and numbness in the right hand and forearm, which led to the opinion that the brachial plexus and probably the vessels had sustained serious injury; but the tumefaction around both shoulders was already so great as to render it very difficult to detect the exact nature of the injuries sustained. He was given a full dose of sedative solution of opium, cooling lotion applied to the left arm, and the right hand and forearm were enveloped in cotton-wool.

On the 29th the man was transferred as a pauper patient to Mr. Cornwall, F.R.C.S., of Fairford. There was now total loss of sensibility and motion up to the elbow; the part felt quite cold and clammy, and there was extensive purplish discoloration over the extensor surface. The shoulder was still very much swollen and painful, and, though no fracture nor displacement could be detected, there was evidence of the whole of the structures in the axilla and around the shoulder having undergone extreme strangulation before his clothes, which were made of very coarse and strong material, gave way. My own opinion was that both nerves and vessels were implicated, and that the latter were in all probability occluded by the torsion or twisting to which they had been subjected. He was ordered a fair allowance of wine, stout, beef-tea, &c., and continued the sedative dose at bedtime, which he much craved for.

Mr. Cornwall and myself visited the man alternately, and we very quickly found unmistakable proof of the death of the part, vesications arising, and other cadaverous changes taking place. The mortification continued to extend up the arm until the 6th September, when a distinct line of demarcation was visible about an inch above the insertion of the deltoid externally, but internally it reached the very apex of the axilla. The limb now presented a most loathsome appearance, for maggots were preying upon the poor dead member. Asking the man on one occasion how he was going on, he replied rather humorously that "he should feel better if he had not so much livestock in the bed."

At this stage I was strongly in favour of amputation; but it was feared that he was not in a position to bear it, and that even if he did not die under the operation he would in all probability have sloughing in the wound afterwards. However, as he lived on, and his condition, to say the least, became no worse, we decided at last to remove the limb; and on Sept. 13th, chloroform having been administered, and Mr. Langley compressing the subclavian artery and Mr. Cornwall having charge of the limb, I performed amputation at the shoulder-joint. Cutting from without inwards, I dissected up the integuments for nearly three inches, cut obliquely through the deltoid, separated the attachments of the muscles from the tuberosity, opened the capsule, threw out the head of the bone, and passing the knife behind it, I had merely to cut through the parts beneath; for the gangrene extended so high that no internal flap whatever could be obtained. The hæmorrhage on dividing the vessels being most profuse, I immediately grasped the axillary artery between my thumb and forefinger, and Mr. Langley placed a ligature around it. Unfortunately this slipped; but I again laid hold of it, and this time pulling it well forwards, and separating it from its close connexions, it was effectually secured. We then tied three other arteries which bled freely. By this time the poor fellow was wellnigh moribund; but by discontinuing the chloroform, and giving him brandy *ad libitum*, he was somewhat restored. The flap, which was not large enough to cover half the wound, was retained *in situ* by sutures very loosely applied, and the part covered with wet lint. Fearing secondary hæmorrhage, I remained with him for eight hours, and before leaving gave him a draught containing half a drachm of sedative solution of opium (Battley's).

On visiting him early the following morning, we found there had been no further hæmorrhage, that he had slept comfortably, and had taken a fair allowance of wine and beef-tea, and that the bowels and bladder had both been relieved.

I regret that notes of the case were not taken, as from memory I am unable to detail his state from day to day; but suffice it to say that he progressed uninterruptedly towards recovery, and the rapidity with which granulation proceeded, after the first few days, was very astonishing.

On Oct. 13th I removed the last ligature, and by the end of the month the wound had completely healed. The dressings throughout were of the most simple nature, our chief object being to keep the wound as healthy as possible. Doubtless the good hygienic conditions by which he was surrounded, and his own cheerful and sanguine disposition, influenced very greatly his recovery.

The injury to the left arm subsequently proved to be very serious, the fracture being comminuted, and extending into the elbow-joint. Union is now taking place; but I fear there will always be more or less impairment of motion.

Our thanks are due to Mr. Langley for his kind assistance at the operation, and the man's wife deserves great praise for the very excellent way in which she carried out our instructions, and attending to him with all the care and judgment of an experienced nurse.

I remain, Sir, yours truly,

Fairford, November, 1875. H. W. FURNIVALL, M.R.C.S. Eng., &c.

HOSPITAL VENTILATION.

Fraser's Magazine for the current month contains an article on the "Ventilation of Hospitals," which, without adding anything to what is already known, or attempting to treat the subject elaborately and upon a scientific basis, will, nevertheless, do good by diffusing information about the principles and general facts of hospital ventilation among subscribers to these institutions. In dealing with his subject, the writer draws largely upon Mr. Erichsen's excellent lectures on Hospitalism, which first appeared in the pages of THE LANCET, and upon the works of Reid, Parkes, Guy, Wilson, and others, with those of Miss Nightingale and Miss Florence S. Lees.

Birkenhead.—Our correspondent should apply to Messrs. Churchill.

A WASHING MACHINE.

To the Editor of THE LANCET.

SIR,—I send you a short description of a washing machine, recently invented for the purpose of washing the "cotton-waste" used for machinery, but so well adapted for cleansing all kinds of infected clothing that I venture to think that it should find a place in every hospital, workhouse, and public disinfecting establishment. The principle is simple, and the work so well performed that even the cotton-waste—a substance hitherto almost uncleansable, except by a process destructive to the fabric—is so perfectly freed from oil and starchy matters that its quality is actually improved and rendered available for the finest work.

The machine is the invention of Mr. W. Kirton, of Nottingham, where it may be seen in daily operation. It consists of a strong cast-iron steam-tight case, in which revolves a wire cage to contain the articles to be washed. This cage is divided longitudinally into compartments by perforated partitions. Superheated steam, boiling water, or cold water can be introduced into the apparatus by pipes communicating with the interior through the hollow axis which rotates the cage. These pipes are so perforated that the steam or water is delivered upon every part of the fabric to be operated on. Thus, supposing the machine to be filled with sheets, blankets, or other articles, the lid is clamped down, and superheated steam is forced in from the engine boiler, afterwards hot water is introduced from the same source, and the steam being still admitted, the contents are well boiled, whilst the cage is made to revolve rapidly. By opening a stop-cock, the dirty water is drawn off (being completely expelled by the action of the steam), and cold water is introduced. The vacuum thus produced, together with the centrifugal action of the revolving cage, effectually rinses the clothing.

In the case of greasy materials, the inventor has prepared an ammoniacal soap, which he uses also for the purpose of washing ordinary household linen &c., and certainly the difference between specimens of articles washed by this machine and those "got up" by the washerwoman is most striking.

During a recent visit to Nottingham, Mr. Kirton showed me one of these machines, set up in an ordinary sized washhouse attached to his private residence. It was worked by a one-horse power steam-engine, and fully illustrated the practical advantages it possesses over the common appliances seen even in our best equipped hospital laundries.

This description is necessarily imperfect; but enough has been said to show the various adaptations to which the apparatus may be subjected for the purpose of disinfecting articles of clothing.

Yours sincerely,

Lincoln, November, 1875. G. M. LOWE, M.D.

Curious.—It is now very rarely bestowed, and, in fact, the practice has fallen into desuetude and almost into oblivion.

Mr. J. McInnes is thanked for his offer, which, however, we regret we cannot accept.

"GILBAH."

To the Editor of THE LANCET.

SIR,—In *The Times* of Tuesday last, under the heading "Tragedy on Board Ship," are reported the murderous actions of a seaman, named "Noan," while on a voyage from Hong-Kong to Bangkok. The explanation of these deeds is given by the captain as follows:—"The man Noan, by whom the tragedy was committed, was suffering from a disease known among the Malays and Siamese as 'gilcah' or 'amocque.' It takes the form of ringworm, and is attended in *every* case by madness of more or less severity."

As everything contributing to enlightenment on the pathology of insanity is of importance, especially the somewhat vexed question of co-existence of skin disease with it, perhaps some of your readers who may have observed the disease in question may be able to give a description of it. It has not been my own fortune to meet with the association, although I have seen much of skin disease, including ringworm, among Eastern people.

I am, Sir, yours faithfully,

JAMES ADAMS, M.D.,
Medical Superintendent.

Metropolitan District Asylum, Caterham, Nov. 10th, 1875.

UNQUALIFIED PRACTICE AND QUALIFIED PRACTITIONERS.

To the Editor of THE LANCET.

SIR,—As you say the case of "One whose Qualifications afford no Protection" is a very bad one, I think I can give you a case which equals it in many particulars.

One of the medical men in my neighbourhood habitually employs an unqualified assistant, who does almost all his parish work, vaccinates for a public appointment without his principal in many cases *seeing the children* at all, and to my knowledge attended five midwifery cases in one week. In many cases the assistant has attended long illnesses, and the patient has been seen once or twice by the principal before death, and the usual certificate given.

As your correspondent so justly remarks, the clubs (which are also greatly attended by the unqualified assistant) are ruled by the few, with whom the medical man is careful to keep on good terms, and attend well; whilst in many cases the others have to send twice or three times before being seen.

Certainly the profession cannot hope to be defended from quacks whilst the (in almost all cases) old members behave so shamefully themselves.

I remain, Sir, yours &c.,

November, 1875. ANOTHER WHO IS QUALIFIED.

"MEN OF THE WORLD" *v.* "SCIENTIFIC SPECIALISTS."

THE following passages from an article on the "Report of the Poor-law Board" in the last number of the *Saturday Review* deserve attention:—

> "There is so much indolence to be surmounted, there are so many private interests to be overridden, that there is not much chance that Parliament will take so unpopular a task in hand until something like an intelligent opinion can be created out of doors. The Reports of the Local Government Board Inspectors would supply the materials out of which this opinion would have to be constructed. They are laymen, and therefore not likely to take a purely medical view of the facts presented to them. Their estimate of the acts of the several sanitary authorities will be the estimate of *men of the world*, not *of scientific specialists*, and it will for that very reason be the better calculated to impress men of the world. If it were desired to raise the sanitary condition of the country to an ideal pitch of perfection, it would no doubt be expedient to go to the doctors for suggestions; but since all that we can at present aim at is to make that condition conform to common-sense rules, which are conceded in theory almost as universally as they are violated in practice, laymen answer the purpose better. Yet it is the Reports of the laymen that are carefully kept back from the public."

When a generally intelligent and well-informed dogmatist is so carried away by his prejudices that his dicta become ludicrous, it is sometimes sufficient for the purpose of recalling him to consciousness that his argument should be transformed into a *reductio ad absurdum*. May we be permitted to apply that treatment to the reasoning of the *Saturday Review*? The change of words required is singularly slight.

> "If it were desired to make the country perfectly healthy, it would no doubt be expedient to go to persons who have devoted their lives to the study of the causes, the prevention, and the cure of unhealthiness for suggestions; but since all that we can at present aim at is to make it moderately healthy, the advice of persons who have not made a special study of health or disease, and who are only 'men of the world,' will answer the purpose better."

The same method of reasoning might be applied to other matters. For example:—

> "If it were desired to produce an article likely to place the needs of the sanitary situation before the public with a fidelity wholly free from prejudice, and rising to a pitch of perfection, it would no doubt be desirable to go to somebody who understood the subject for suggestions; but since all that we can at present aim at is to give such a version of the case as shall magnify the pretensions of laymen and depreciate the services of the doctors, the assistance of a layman will, of course, answer the purpose better."

It is impossible not to perceive that the *Saturday Review* has hit on an excellent expedient to secure the end apparently in view.

A CAUTION.

To the Editor of THE LANCET.

SIR,—It is well that through the columns of your widely circulating journal the profession should learn of the latest novelty in pushing the notoriety of those unblushing pretenders who feed on the weakness and gullibility of suffering humanity, for which purpose you will kindly admit the following details, the veracity of which is guaranteed by the enclosure of the names of all the parties concerned, though it is not needed to publish them.

A lady, suffering from cancer, was ordered to —— for change, and desired to proceed by the easiest mode of conveyance. Her sister proceeded to the chief railway station to engage an invalid carriage, and saw the official in charge of such arrangements, who, although not prepared yet with slinging hammocks, promised to make the most comfortable disposition of the means at his command. Then requiring to know the nature of the disease of the sufferer for whom it was necessary to engage this mode of transit, and being told that it was for a lady affected with cancer, said, "Oh, we have a Swiss doctor here who cures cancers and consumptions. He cured one of our porters, who was turned out of the Consumption Hospital as incurable." The lady, on this recommendation, requested the address of this "Swiss doctor," and his services were obtained for her poor sister, it is idle to say, with the usual result of a large expenditure of money, a fearful increase of suffering, and, worst of all, the painful frustration of hopes buoyed up by cruel deceit and fraudulent misrepresentations.

Surely no railway board would sanction such an unwarrantable interference with passengers by their trains from any of their officials, and the public ought to be protected from imposition reaching them in such an insidious and dangerous form. That the "station master" was justified in seeking the knowledge of the malady, as to its nature, whether contagious or not, is true; but to require information for the purpose of pushing the services of any irregular practitioner of the healing art is too great a strain on the credulity of the age to impute the motive purely to benevolence.

I am, Sir, yours truly,

November, 1875. ARGUS.

Mr. Clement E. Priestley, (Ely.)—The medical officer of health has no privilege of entry under the circumstances stated, except by permission of the head of the family, and such permission does not exonerate him from the courtesies due to the medical man in attendance. In this case the medical officer of health should first have communicated with the medical attendant.

TREATMENT OF INCONTINENCE OF URINE.

To the Editor of THE LANCET.

SIR,—In THE LANCET for January 23rd, 1875, appeared a communication from me, requesting suggestions as to the treatment of a long-standing case of incontinence of urine. In reply to the numerous suggestions that were kindly offered through the medium of your journal, I beg to state that I treated the case with five-minim doses of tincture of belladonna three times a day, following out the suggestion of Dr. James Sawyer. The treatment was continued for six weeks, with very marked improvement, and at the present time the patient is almost entirely free from this very harassing complaint. The successful treatment of the case with belladonna is, I think, worthy to be noted, as cases of this kind are not unfrequent.

Very truly yours,

London, Nov. 11th, 1875. B.

THE "DIFFERENTIAL" STETHOSCOPE.

To the Editor of THE LANCET.

SIR,—I observed in the advertising columns of last week's LANCET Mr. Millikin's advertisement of a so-called "differential stethoscope." With reference to this advertisement, I beg to say that the instrument in question was one of my earliest and very imperfect attempts at the production of a biaural stethoscope with head-spring, and was obtained, as I have discovered to-day, by Mr. Millikin in May last from the instrument-maker who was working out my idea. Doubtless without any harm being intended by either of the parties concerned, this is an infringement of my invention of a head-spring stethoscope, at present being introduced by the Messrs. Arnold, of West Smithfield.

Trusting you will allow this letter to appear, along with the enclosed letter from Dr. Herbert Davies relative to the same subject,

I am, Sir, yours truly,
R. HARVEY HILLIARD, M.D.

Belgrave-terrace, Upper Holloway, N., Nov. 9th, 1875.

23, Finsbury-square, E.C., Nov. 9th, 1875.

DEAR DR. HILLIARD,—You kindly gave me about two years ago a very convenient and ingenious double stethoscope, provided with a head-spring, which you had invented. As a similar instrument has lately appeared, I think it is only due to you that I should state the fact above mentioned.

Believe me, yours very truly,
HERBERT DAVIES.

P.S.—You may, of course, make use of this note as you think fit.

TYPHOID AND DISTEMPER.

To the Editor of THE LANCET.

SIR,—The evidence presented by "H. H." respecting the connexion between "distemper" in the dog and typhoid in the human being tends to confirm an observation that I made eight or nine months ago.

I was attending a batch of typhoid cases of a severe type, to account for which I could not at first discover any cause; but a short time afterwards I was called to attend an eccentric woman (residing in the midst of the infected neighbourhood), also suffering from typhoid. She had in the house six or eight canine pets, all of which seemed to be suffering from some form of distemper. It occurred to me that this might be the source from which these typhoid patients were infected. I caused all the dogs to be destroyed, but unfortunately no post-mortem examination was made. No fresh cases in that vicinity have since come to my knowledge.

Manchester, Nov. 10th, 1875. C. L. SMITHARD, M.R.C.S. Eng.

COMMUNICATIONS not noticed in the current number will receive attention in our issue of the ensuing week.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. G. Johnson, London; Prof. Maclean, Netley; Dr. C. Theodore Williams, London; Prof. Macleod, Glasgow; Mr. Garland, Yeovil; Mr. Chambers, Chester; Dr. B. Foster, Birmingham; Mr. Saunders, South Molton; Dr. King, Hull; Mr. Robinson, Dorchester; Mr. Mitchinson, London; Dr. Bond, Brinklow; Dr. Semtleben; Dr. Purvis, Mainhouse; Rev. J. A. Hatchard, St. Leonard's; Mr. Bell, Uppingham; Mr. Deschamps, London; Dr. Daly, Dalston; Mr. Layton, Islington; Dr. Mercer, Beverley; Dr. Carpenter, London; Mr. Smart, Brighton; Dr. Donald, Ceylon; Mr. Reed, Stafford; Mr. Hardman, Blackpool; Dr. Wilson, Greenock; Mr. Thompson, Spennymoor; Mr. Furnivall, Fairford; Dr. Gould, London; Mr. Thomas, London; Messrs. Edmondson and Co., Skipton; Mr. Harries, Plymouth; Mr. Banks, Liverpool; Mr. Phillips, London; Mr. Mackey, Edgbaston; Dr. Jonasson, Reykjavik, Iceland; Mr. Pines, London; Dr. Will, Aberdeen; Mr. Coates, Salisbury; Mr. Perks, Burton-on-Trent; Mr. Bromley, Hammersmith; Mr. Wollen, London; Mrs. Ross, London; Dr. Boenner, Berlin; Dr. Middleton, Manornead; Dr. Pettigrew, Aberdeen; Mr. Hall, Bath; Mr. Young, Chatham; Mr. Harland, Folkestone; Dr. Lush, Weymouth; Mr. Ward, Darlington; Mr. R. Worth, Wingfield; Dr. Hilliard, Holloway; Mr. Fowler, London; Dr. Griffith, London; Dr. Morison, London; Mr. Graham, Rotherham; Mr. Pike, Gloucester; Mr. Furness, Carlisle; Mr. Roberts, London; Dr. Guenther Dresden; Dr. Broom, Sheffield; Mr. Borchert, Netley; Mr. Thomson, London; Mr. Brooks, Odiham; Mr. Crofts, Burton-on-Trent; Mr. Fitness; Mr. W. Smithwick; Dr. Alexander, Bradford; Dr. Delves, Exeter; Mr. M'Innes, Wakefield; Mr. Pearce, Ipswich; Dr. Adams, Caterham; The Registrar-General of Edinburgh; Prolapsus; The Publisher of *Land and Water*; Qualified; A Poor Christian; G. R.; M. M.; Veritas; M.D.; M.R.C.S., Leeds; James; An Occasional Reader; J. S.; A Poor Surgeon; B.; &c. &c.

LETTERS, *each with enclosure*, are also acknowledged from — Mr. Wilders, Birmingham; Mr. Hartley, Cheltenham; Mr. Newberry, Maidstone; Mr. Robinson, Brighton; Mr. Ogden, Manchester; Mr. Savage, Swinefleet; Messrs. Leader and Sons, Sheffield; Dr. Grant, Longton; Dr. Tate, Woodbridge; Mr. Edwards, Shottisham; Mr. Smith, Manchester; Messrs. J. and H. Grace, Bristol; Dr. Thornley, Leicester; Mr. Harrison, Ellesmere; Mrs. Bakewell, Church Stretton; Mr. Brown, Tredegar; Mr. Miller, South Brent; Mr. Clark, Dalton-in-Furness; Mr. Cox, Manchester; Mr. Williams, Talgarth; Mr. Bedford, Amersham; Mr. Moore, London; Dr. Willmore, Romsey; Mr. H. Lyne, Newport; Mr. Williams, Llanrwst; Mr. Bink, Wakefield; Mr. Cole, Hatton; Medicus, Exeter; G. J. D.; Medicus, Hartlepool; Alpha, Kegworth; W. T., Oundle; Medicus, Sheffield; J. Y.; S. W. R.; A. B., Wakefield; Medicus, Newcastle-on-Tyne; Delta; M.R.C.S., Newcastle-on-Tyne; Nucleus, London; L.R.C.P. Lond.; A. D., Totnes; W. B. A.; G. Folkestone; A. B., London; P. P., Swansea; F. W., Dublin; R. W.; Medicus.

St. Leonard's News, Welshman, Newcastle Chronicle, Leeds Mercury, Birmingham Morning News, Marlborough Times, Western Morning News, Manchester Guardian, Medical Record, Dublin Evening Mail, Cork Constitution, Redruth Times, North British Daily Mail, Croydon Advertiser, and *Midland Counties Express* have been received.

METEOROLOGICAL READINGS

(Taken by Steward's Instruments).

THE LANCET OFFICE, NOV. 11TH, 1875.

Date	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Wet Bulb.	Dry Bulb	Solar Radia in Vacuo	Max. Temp. Shade	Min. Temp.	Rain-fall.	Remarks at 9 A.M.
Nov. 5	29·80	S.W.	47	48	...	58	46	...	Foggy
„ 6	29·04	W.	54	57	...	57	47	0·47	Raining
„ 7	29·45	W.	45	48	...	59	44	...	Overcast
„ 8	29·33	N.W.	38	40	...	47	35	0·35	Misty
„ 9	29·50	W	35	40	...	54	35	...	Foggy
„ 10	28·64	N.W.	50	51	...	53	39	0·41	Raining
„ 11	29·08	N.W.	43	44	...	50	40	0·47	Raining

Medical Diary for the ensuing Week.

Monday, Nov. 15.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
ST. MARK'S HOSPITAL.—Operations, 9 A.M. and 2 P.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
MEDICAL SOCIETY OF LONDON.—8½ P.M. The Discussion on the "Case of Excision of the Astragalus," shown by Mr. Watson on Monday last.—A paper by Dr. Drysdale: Subject, "For and against Animal Vaccination."

Tuesday, Nov. 16.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.
PATHOLOGICAL SOCIETY OF LONDON.—8½ P.M. The following Specimens will be exhibited:—Fractured Bones of Gorilla; Rickets in Pheasants; Distended Diverticula of Intestine; Pulmonary Embolism; Tubercle of Pancreas; Tumour of Jaw; Tubercular Lupus of Tongue; Fatty Tumour of Male Breast; Hydatid in Heart; Elio-sarcoma of Brain; Larynx after Tracheotomy; Dilatation of Bile Ducts; Aneurism of Aorta; Obliteration of Superior Cava; Ulceration of Duodenum; Congenital Malformation of Œsophagus; Syphilitic Growth of Cerebral Sinuses; Disease of Pulmonary and Tricuspid Valve; Hæmorrhagic Periostitis; Elioma of Brain; Fatty Tumour of Spinal Cord; Congenital Deficiency of Common Bile Duct; &c. &c.

Wednesday, Nov. 17.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1½ P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.
LONDON HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.

Thursday, Nov. 18.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.
HARVEIAN SOCIETY.—8 P.M. Dr. J. E. Pollock, "On certain Varieties of Heart Disease with reference to Prognosis and Treatment."

Friday, Nov. 19.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, Nov. 20.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

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